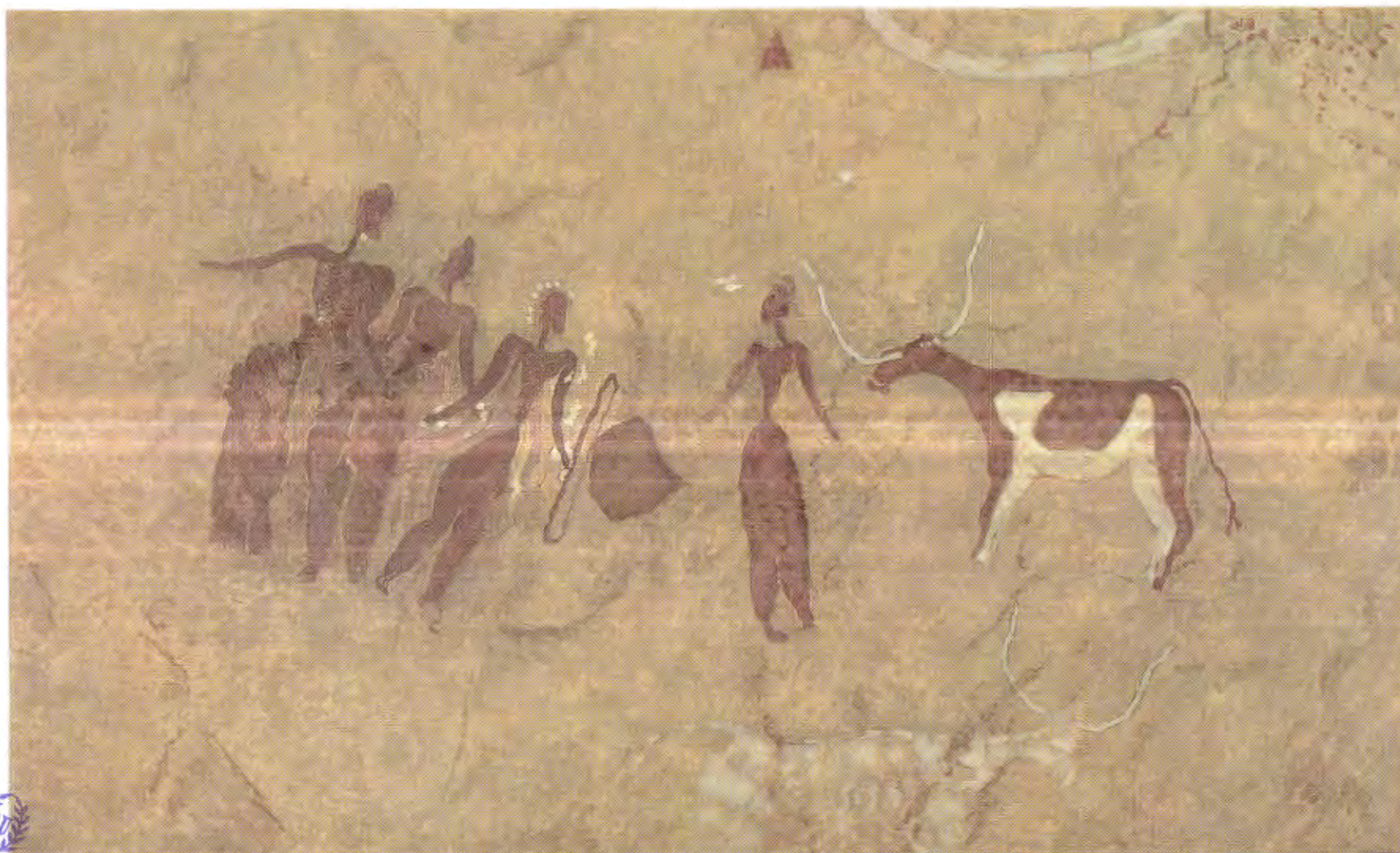


ROCK-DRAWINGS OF SOUTHERN UPPER EGYPT

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Autochthonous Mountain Dwellers: Uwenat Cattle Breeders. *See pp. 21, 26.*

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ARCHAEOLOGICAL SURVEY OF EGYPT

ROCK-DRAWINGS

OF

SOUTHERN UPPER EGYPT

II

(INCLUDING 'UWĒNÂT)

SIR ROBERT MOND DESERT EXPEDITION

SEASON 1937-1938
PRELIMINARY REPORT

BY
HANS A. WINKLER



LONDON
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PREFACE

THE present volume shows the main results of the second Sir Robert Mond Desert Expedition: a selection of engravings and paintings collected in the Western Desert. If the reader finds profit in this new and partly quite unexpected material, he may join his thanks with ours. He may remember that it was Sir Robert Mond who generously enabled us to carry out these researches, and who encouraged the work by his vivid and permanent interest.

Each photograph is accompanied by the number of the site and the number of its negative. Every drawing which I have chalked out (or inked) I have also photographed before touching up.

It seemed to me important to state the colours of the rock-paintings as exactly as possible. I used for this purpose Dr. Ostwald's Unesma Farbentafeln, an instrument comprising some hundreds of shades of colour. By holding the sheets with the numbered colour shades of the Unesma Farbentafeln against the paintings on the rocks I could describe the colour of the painting by the corresponding number in the Farbentafeln. In Cairo I had enlargements of certain of the rock-paintings made and gave these to an artist, Mr. A. Holm. He made tracings from these enlargements, and I gave him the numbers of the colours in the Unesma Farbentafeln for each detail of the painting as well as of the stone. He was then able to reconstruct these desert paintings. The coloured plate of this volume is one of the results.

The full collection of negatives and prints is kept in the library of the Egypt Exploration Society, where they may be seen.

For the last month of the season I joined the expedition of Mr. O. H. Myers and Major R. A. Bagnold, who were exploring the Gilf el-kebîr and 'Uwênât. I am much indebted to both, as also to the following members of their expedition: Mr. Terence Gray, Mr. R. F. Peel, and Mr. H. Palamudian. Every one helped me in my researches. Mr. Myers and Mr. Gray looked for rock-drawings during their exploration of the Eastern Gilf. The result was negative. This negative result is as important as a positive one; it limits the area of the artists of 'Uwênât to one side. At 'Uwênât Major Bagnold discovered site 75 at a place hidden high on the mountains, and Mr. Gray guided me to this place, which is somewhat difficult to find. Mr. Palamudian took much trouble in finding new sites. He discovered sites 74 and 80. It was a further advantage of this joint expedition that we could discuss archaeological, ethnological, and climatological questions on the spot in the long evenings. Each contributed his share.

During my work in the Oasis area I enjoyed the help of the Governor of the Oases, Mohammed Wasfi Bey, and his officials.

I had many advantageous discussions, in Cairo with Mr. G. W. Murray, Director of the Desert Survey, Father P. Bovier-Lapierre, and my friend Mr. Joseph Dudler; in England with Prof. P. E. Newberry, Prof. B. Gunn, Prof. S. R. K. Glanville, Messrs. G. Brunton, D. Newbold, Sidney Smith, and H. J. Braunholtz.

Mr. O. H. Myers has kindly sent to me the following note on the sherds and stone implements which has arrived in time for me to include it here.

"I have examined the sherds and stone implements from your sites and Mr. Harper

Kelley has kindly gone all through the latter. The subdivisions of the predynastic period must be treated with the greatest reserve.

Sherds: Protodynastic to Old Kingdom—Site 25.

Fourth Century A.D.—Site 241.

Implements: Neolithic—Sites 63, 67 and 69.

Neolithic to predynastic—Sites 23, 58 (late ?), 62, 63, 64, 67 (early ?), 68, 69 (early and middle ?)."

Miss M. S. Drower, of University College, London, has my hearty thanks. She again lent me her ever-ready help in reading the manuscript.

H. A. W.

CONTENTS

PREFACE	v
INTRODUCTION	1
THE SITES	4
THE COLLECTED MATERIAL	12
I. INSCRIPTIONS	12
II. SIGNS	12
1. Signs of the Arab Period	12
2. Signs of the Graeco-Roman-Coptic Period	13
3. Earlier Signs	13
III. PICTURES	13
1. Arab Period	13
2. Graeco-Roman-Coptic Period	15
3. Dynastic Period	15
4. Undatable Early, Predynastic, and Prehistoric Pictures	17
A. Early Nile-valley Dwellers	17
B. Eastern Invaders	18
C. Autochthonous Mountain Dwellers: General	18
D. Autochthonous Mountain Dwellers: Uwenat Cattle Breeders	20
E. Early Oasis Dwellers	27
F. Earliest Hunters	31
CHRONOLOGICAL SEQUENCES	32
RESULTS AND PROBLEMS	35
INDEX	39

INTRODUCTION

THE Sir Robert Mond Desert Expedition for the collection of rock-drawings had for its aim during the season of 1937-8 a survey of the Upper Egyptian Desert west of the Nile. This area is so vast that it was impossible to survey the whole. I therefore chose the following parts of this desert: (1) the edge of the desert touching the Nile from Qena to Aswân; (2) one road from the Nile valley to Khârga Oasis, and the main road from Khârga Oasis to Dâkhla Oasis, and (3) 'Uwênât. To visit 'Uwênât I joined during the last month of the season the expedition of Mr. O. H. Myers and Major R. A. Bagnold, who at that time were exploring the Libyan Desert farther afield.

Rock-drawings on the edge of the desert had been observed by many former explorers and by myself near Luxor and near Hôsh (see *Rock-drawings of Southern Upper Egypt* I (abbreviated in the following, *RSUE* I, p. 2).¹ I rode from Qena to Esna, everywhere entering the most rocky and therefore most promising wadis. Approaching Esna the hills become less and less suitable for rock-drawings; the stone is too soft and crumbly, and so it continues southwards. South of Edfu I did not survey the edge; I went by train straight on to Silwa. Here I continued my former researches near Hôsh and found several rock-drawing sites, particularly in the district south of this village. Again I did not continue very far. I went by train to Aswân and surveyed the rocky west bank opposite the town.

From Esna I started for Khârga Oasis. I chose the road which enters the desert south-west of Esna along the Wâdi Rumêdîn. Again the rock surfaces are not inviting to the draughtsman. An old Arab, Ahmed Ibrêk from the 'Awâzim near Esna, told me that in a branch of this wadi he had seen some buildings. There I found the ruins of rectangular houses on the top of the cliff and near them many trenches, probably mine-workings. On the ground I found some potsherds and the broken pieces of an unusually large bowl. The road leads from the Wâdi Rumêdîn to the south of Khârga Oasis, to the village of Dûsh.

Near Khârga and Dâkhla Oasis rock-drawings and inscriptions had formerly been observed by the following explorers:

J. BALL, *Kharga Oasis: its Topography and Geology*. Survey Department, Public Works Ministry. Geological Survey Report, 1899, Part II (Cairo, 1900), 80.

W. DE BOCK, *Matériaux pour servir à l'archéologie de l'Égypte Chrétienne* (St. Petersburg, 1901).

W. J. HARDING KING, *Mysteries of the Libyan Desert. A Record of Three Years of Exploration in the Heart of that Vast and Waterless Region* (London, 1925), 326-36.

G. SCHWEINFURTH, *Notizen zur Kenntnis der Oase El-Chargeh*. Petermann's Mittheilungen, 21 (1875), 384-93.

¹ The following must be added to the list of references given there:

P. Bovier-Lapierre, *Industries préhistoriques dans l'Île d'Éléphantine et aux environs d'Assuan*. Bulletin de l'Institut d'Égypte, 16 (1933-4), 121, 126.

G. E. Chester, *On Archaic Engravings on Rocks near Gebel Silsileh in Upper Egypt*. The Archaeological Journal, 49 (1892), 120-30.

G. Schweinfurth, *Über alte Tierbilder und Felsinschriften bei Assuan*. Zeitschrift für Ethnologie, 44 (1912), 627-658.

H. E. WINLOCK, *Ed-Dākhleh Oasis, Journal of a Camel Trip made in 1908*. The Metropolitan Museum of Art, Department of Egyptian Art, vol. v (New York, 1936), 10, 53.

I visited the place described by Ball, travelled north to Khârga village and there found certain rock-drawings—not the main site—described by Schweinfurth. The long journey from the Nile valley to Dûsh and from there to Khârga produced meagre results. The main road from Khârga to Dâkhla, the Ghubâri Road, leads through a promising broken country. Many hills, particularly those north of the road, show faint traces of engravings. The sand-wind coming from the north has eroded them. Finally, near Dâkhla I found sandstone hills covered with drawings of a quite unusual type and importance.

I did not continue my researches in the north and south and west of Dâkhla Oasis. Probably there are more rock-drawings there. A native of Qaṣr in the west of the oasis told me that in the mountains near his town there are paintings on the rock.

I reached the Gilf el-Kebîr and 'Uwênât by car. From these places rock-paintings and -drawings have been reported by the following explorers:

L. E. DE ALMÁSY, *Récents Explorations dans le Désert Libyque (1932-1936)*. Publications de la Société Royale de Géographie d'Égypte (Cairo, 1936).

R. A. BAGNOLD, *Libyan Sands* (London, 1935), 209-11.

R. A. BERMAN, *Historic Problems of the Libyan Desert*. The Geographical Journal, 83 (1934), 456-63.

H. BREUIL, *Gravures rupestres du Désert Libyque identiques à celles des anciens Bushmen*. L'Anthropologie, 36 (1926), 125-7. (On engravings published from 'Uwênât by Hassanein Bey.)

L. DI CAPORACCO, *Le Pitture preistoriche di Āin Dôua (Auenât)*. Archivio per l'Antropologia e la Etnologia 63 (1933), 275-82.

L. DI CAPORACCO e P. GRAZIOSI, *Le Pitture rupestre di Āin Dôua (El Auenât)*. Con Prefazione dell On. Prof. B. Pace. Centro di Studi Coloniali (Florenz, 1934).

A. M. HASSANEIN BEY, *Crossing the Untraversed Libyan Desert*. The National Geographic Magazine, 46 (1924), 233-78.

A. M. HASSANEIN BEY, *The Lost Oases* (London, 1925), 203-5.

L. FROBENIUS, *Ekade Ektab. Die Felsbilder Fezzans* (Leipzig, 1937).

PRINCE KEMAL EL-DINE et H. BREUIL, *Les Gravures Rupestres du Djebel Ouenat*. Revue Scientifique Illustrée, 66 (1928), 105-17.

H. W. G. J. PENDEREL, *The Gilf Kebir*. The Geographic Journal, 83 (1934), 449-56.

W. B. KENNEDY SHAW, *The Mountain of 'Uweinât*. Antiquity, 8 (1934), 63-72.

W. B. KENNEDY SHAW, *Rock-paintings in the Libyan Desert*. Antiquity, 10 (1936), 175-8.

H. A. WINKLER, *Early Ethnology of the Libyan Desert as illuminated by Pictures of the Sir Robert Mond Rock-drawing Collection*. This paper will appear in the transactions of the congress of Saharan archaeologists held at Paris in the summer of 1938.

At 'Uwênât I collected the engravings and paintings on the rocks in the north-eastern quarter of the massif, starting from our base-camp in the Kurkur Ṭalḥ. On the way back to Dâkhla I visited the site discovered by Shaw in the Southern Gilf. Unfortunately I was myself unable to survey the Wâdi Ṣôra ('wadi of the pictures', we should more correctly call it Wâdi eṣ-Ṣuwar) in the Western Gilf. An expedition sent out in 1934 by the Cairo newspaper *Al-Ahram* visited 'Uwênât and the Western Gilf. H. de Heller copied many of the paintings he

found. The Wâdi eṣ-Ṣuwar was particularly rich in interesting paintings. The collection of copies belonging to the *Ahram* has never been published. I had the opportunity of seeing it, when it was lent to Sir Robert Mond. At the very end of our expedition Major Bagnold and Mr. Peel were able to visit this wadi. Mr. Peel copied and photographed many of these fine paintings, and he kindly put his collection at my disposal.

The Western Desert is quite different from the Eastern Desert. In the latter to-day many wadis are to be found which are rich in vegetation, and wells are scattered over the country; the area is rich in ores, and finally it is a bridge between the Nile valley and the Red Sea. Bedouin live here as they did hundreds and hundreds of years ago, miners carry on their work, and traders travel to the coast. The Western Desert is an endless emptiness. There are vast stretches without any vegetation, distances too large for the toughest of the bedouin. At the present day permanent human life is found only in the oases. Cars and the railway now connect the oases with the Nile valley. Beside them the former intermediaries, Arab bedouin, continue to travel across the desert with their caravans. They are much poorer than the bedouin in the east, for the country is so much poorer. We shall see that the traces of communications in Graeco-Roman-Coptic and in dynastic times—common in the Eastern Desert—are here quite negligible. Only from remoter times do we find plentiful remains of human life.

In the Eastern Desert we could distinguish four groups of early peoples represented in the rock-drawings: Autochthonous Mountain Dwellers, Early Nile-valley Dwellers, Eastern Invaders, and Earliest Hunters. We shall find traces of the Early Nile-valley Dwellers and of the Eastern Invaders on the west bank of the river, and of the Autochthonous Mountain Dwellers and the Earliest Hunters both here and deep in the Western Desert.

THE SITES

THE geological situation in the explored parts of the Western Desert is the following. The Nile valley from Qena to Aswân and the depression of Khârga are separated by a limestone plateau. This limestone approaches the Nile valley between Qena and Luxor. The stone is here solid, the plateau breaks off nearly vertically, and many short wadis, sharply and deeply incised, lead down to the Nile. From Luxor to Esna the plateau is not so close to the valley, and the stone is less solid; hills and wadis no longer have the sharp forms so well known from the west bank of Luxor. South of Esna the distance between plateau-edge and river becomes larger and larger and islands of Nubian sandstone appear. At Hôsh this sandstone touches the river. It forms solid rocks with good surfaces for rock-drawings. At Aswân again the solid sandstone is close to the river.

The top of the limestone plateau is flat, sometimes so flat that it is hard to find any shelter against the wind. Naturally no rock-drawings may be expected here. The edge of the plateau touching the oasis depression is built in the main by cretaceous formations, not at all fit for rock-drawings. A limestone enclosure north-east of Bârîs presents some shady shelters near a well. The place had been chosen and ornamented by Coptic hermits.

The base of the depression is sandstone. This stone becomes solid enough to bear inscriptions near Khârga village.

North of Khârga and Dâkhla stretches a cretaceous mountain. Khârga and Dâkhla themselves are situated in a sandstone area reaching from here southward to the Sudan. The contact of this cretaceous mountain and the sandstone area is characterized between Khârga and Dâkhla by a multitude of small sandstone hills rising from the generally stony and sandy plain. The road avoids the cretaceous mountain and goes through this broken country. In many places the smashed sandstone on the road shows yellow, red, and violet colours. This has given the road its name *ed-ḍarb el-ghubârî*, *ghabra* meaning 'something of variegated colour'. The sandstone is in the main rather soft and therefore not very resistant to the frequent sand-drift from the north.

From about ten to twenty kilometres east of Tenîda, the first village in Dâkhla, I found the stone more solid. Here another feature has to be mentioned also. The ground is not so stony and sandy as it mostly is elsewhere, but muddy. Close to Dâkhla in the *ḥaṭîya* (the depression, bearing some desert vegetation, mainly tamarisks) east of the village of Tenîda, the sandstone becomes so soft that one may crumble a stone to powder in one's hand. This soft stone has produced strange rock formations with good shelters. These rocks are covered with recent drawings. If there were earlier ones they have gone. Names of English soldiers, inscribed there during the War, are in some cases already half destroyed.

The Southern Gilf el-Kebîr and the north-eastern quarter of the 'Uwênât massif are sandstone, in 'Uwênât of excellent solidity, providing smooth walls which were inviting to the draughtsmen. One peculiarity of the sandstone of 'Uwênât is of importance. Only here have I observed that the stone was built up in horizontal layers of differing hardness. A lower layer of softer stone, often but not necessarily at the base of a wadi, may be deeply and neatly washed out by storm-water or by the wind, preserving horizontally the more solid upper layer. The

result is that this upper layer now forms the roof of cavelike shelters. These roofs are in many cases covered with well preserved paintings. Sometimes vertical surfaces in these shelters also bear paintings, but in many cases they are so much destroyed as to be hardly visible. It is quite possible that many shelters elsewhere in the deserts were once ornamented by paintings, but if there was not a real roof, rain and wind have effaced them.

The position of every site has been stated on the maps 1:500,000 issued by the Survey of Egypt.

During the season of 1936-7 forty sites were discovered. From these site 35 at Hôsh, site 36, the Wâdi Sab' er-Rigâl, and site 40 near Armant had not yet been sufficiently explored, so I revisited both places. The newly discovered sites begin with site 41.

Site 35 (see *RSUE* I, p. 9). Rocks near the river beginning at the mouth of the Wâdi Sab' er-Rigâl and stretching about 1,000 m. northwards.

Giraffes, antelopes, ibexes; ass, cattle, dog. Men, uncertain symbols or implements, wavy lines. Outlines of human feet. Elliptic row of holes, possibly gaming-board. Boats.—Hieroglyphic and hieratic inscriptions. Antelopes, lion, leopard (?); cattle. Boats. Archer.—Masons' marks. Fish; ass. Outlines of human feet.

On the top of the hills many disturbed tombs, potsherds.

Site 36 (see *RSUE* I, p. 9). Wâdi Sab' er-Rigâl (I also heard the natives call it *ṣaṭb er-rigâl*).

Giraffes, gerenuk-gazelles. Man.—Hieroglyphic inscriptions. Boats. Man on throne, men with staves.—Cross. Cattle. Outlines of human feet.

Site 40 (see *RSUE* I, p. 9). Branch of the Wâdi Abu Maḍâwi near Armant.

Ibex. Spirals, wavy lines and other geometrical designs.—Gazelles, bird, probably heron; cattle. Schematized human beings.

Site 41. Top of Wâdi es-Sâgiye, north of Armant.

Giraffes, ibex, gazelle (?), ostrich.—Snake.

Some flint implements on the surface. On the opposite western site of the wadi abundant flint nodules, and atelier.

Site 42. Wâdi Abu Maḍâwi, about 9 km. north of the 'Agaba Wâdi Abu Maḍâwi. A well-known caravan road, the Ḍarb el-Biṭân, joining Esna and Farshût goes along this wadi. Large cave on the western side.

Giraffes, antelopes, ibexes.—Schematized tree in red paint, Coptic work.

Some potsherds on the ground.

Site 43. Same wadi, 4 or 5 km. farther north. Shelter on the western side.

Giraffes. Man masked in animal's skin (?).

Some flints, and Roman potsherds.

Site 44. Gebel ed-Duqm, 13 km. south of Dandara, top of first gorge entering from south-west. Big shelter.

Several Coptic inscriptions in red paint. Traces of whitewash on one wall.

On the surface sherds of pottery and glass.

Site 45. Wâdi Barqâ, branch of the Wâdi Magâr, 9 km. west of Nagâda. Solid rocks on the southern side, nowadays a quarry.

Hieroglyphic and hieratic inscriptions. Hippopotami, lion, fish; ass, oxen, horse. Men. Boats. Ram with sun-disk and Uraeus, one hippopotamus on a stand.—Greek and Coptic inscriptions. Crosses, pentagrams. Gazelle, peacock. Men, some with swords and shields, man on horseback, human face.

A path nearby leads up to the plateau and from there to various towns north of the plateau. It seems that in dynastic times this site had some religious importance, possibly in connexion with this path.

Site 46. Wâdi Rizêgât, about 5 km. west of the 'Agaba Abu Maḍâwi, roof-like shelter on the northern side.

Giraffe, antelope, gazelles, cat-like animal. Ithyphallic man with upraised arms and abnormally big hands (?). Boat.—Traces of red paintings.

On the surface near by, flint implements and late potsherds.

Site 47. Branch of the Wâdi Ḥusên, 13 km. west of Esna, cave open to the north-east. Hermitage.

Coptic inscriptions in red paint.

On the ground, sherds of Coptic pottery and glass, tiles, fragment of a column.

Site 48. Rocks near the Nile from the Wâdi Sab' er-Rigâl southwards to the north of the village Hamâm.

Giraffes, antelopes, ibexes, ass, wolf (?), ostriches. Man with lasso (?). Spiral. Boat.—Hieroglyphic and hieratic inscriptions, inscription in unknown characters, resembling Phoenician. Crocodiles; dogs. Men, one attacked by crocodiles, archer, human profile.—Greek inscriptions, masons' marks.—Man on horseback.

On the top of the hills, disturbed tombs of dynastic times.

Site 49. Rocks around the temple of Horemheb opposite the pumping-station of Kagôg. Giraffes.—Masons' marks.

Site 50. Corner of the sandstone ridge, opposite Gebel Silsile. On the top of the ridge here and there on a stretch of ground of about 1,300 m., boulders and walls with drawings and inscriptions.

Giraffes.—Hieroglyphic inscriptions. Cattle, dogs, birds (probably ravens), geese. Men with sticks. Man with Libyan lock and bow.

Site 51. South side of the corner of this sandstone ridge. Shady shelter with vertical walls opposite the *gubba* of a sheikh 'Abd es-Salâm.

Giraffes, ibexes, hippopotamus, ostrich; dogs. Men. Boats.

Site 52. Same side of the ridge, 2,000 m. to the west.

Giraffes. Men, one with feathers. Uncertain objects.

Site 53. About 5 km. north of Aswân, west bank, short wadi. In this wadi, about 3.5 km. west of the river, rocky island.

Giraffes, antelopes, gazelles, crocodile, ostriches; cattle, dogs. Men, some with feathers. Boats. Curved throwing-sticks. Sandals. Wavy lines and other curved compositions.—Man with sword and shield, schematized drawings of men.

Here and there scooped-out cups.

Site 54. At the entrance to this wadi, the holy place of a sheikh Abu 'l-'Abbâs. On the top of the hill a cairn surmounted by a flag. On the north side of this hill, a vertical wall.

Arabic inscriptions and modern drawings of animals, probably goats, and schematized men. In front of the wall, many bones of animals which have been sacrificed here.

Site 55. In the south of Khârga Oasis. North-east of the village of Bârîs, a well, 'En Murra, half-way up the scarp of the plateau. South of the well, many shady walls. The place was apparently a hermitage. It has been visited and described by Ball.

Coptic inscriptions. Gazelle, curious snake or dragon. All in red paint. Arabic inscription also in red paint.

On the surface many potsherds.

Site 56. Boulder about 7 km. south of Khârga village east of the road. Arab tribal marks, *wusûm*, and inscriptions.

Site 57. Ghubâri Road, near km. 63. North of the road.

Arab *wusûm* and very schematized representations of human beings.

Site 58. Ghubâri Road, km. 64.2. About 80 m. north of the road, isolated rocky hill with shady shelters, particularly on the north side. The place has been visited and described by Winlock.

Elephant, giraffes, antelopes, ibexes, ostriches; dogs. Men, some wearing arrows in their hair, woman. Bows, arrows, sandals. Wavy lines and other geometrical compositions.—Antelopes (?), ass.—Arab *wusûm* and inscriptions.

On a hill, east of the one already described, giraffes, men, wavy lines.

On the surface, round these hills, implements of flint and quartz, ostrich-shells, pottery of Graeco-Roman time.

Site 59. Ghubâri Road, near km. 87, bell-shaped high hill just north of the road. On the north-east side, half-way up, big wall covered with drawings, much destroyed by the sand wind.

Giraffes, antelopes, ostriches. Men. Wavy lines.

Site 60. Ghubâri Road, about km. 101, southern corner of the Gebel Sebaiya. On a terrace shelter open towards the east. Beside this shelter (south side) on two slabs, drawings.

Two men with exaggerated hands and feet, one superimposed upon giraffes.

Site 61. Ghubâri Road, about km. 132. Several rocky islands about 1,000 m. north of the road.

Giraffe, antelopes, crocodile (?).

About 1,000 m. west, close to the road, low island of rock covered with Arabic inscriptions and *wusûm*. Such *wusûm* occur here frequently on the rocks along the road.

Site 62. Ghubâri Road, about km. 137. About 600 m. south of the road, a row of seven hills. The western one has drawings on its north-east side and on the top.

Giraffes, antelopes, gazelles; dogs. Footprint of antelope. Men, woman. Statuettes representing a pregnant woman carefully drawn on a horizontal slab on the top of the hill.—A few *wusûm*, hexagram.

On the west side of the hill, traces of the walls of an ancient shelter. On the top of the

neighbouring hill, stone walls, shelters (?). On the surface round the hill with the drawings, stone implements, grindstone, ostrich-shells. Potsherds.

Site 63. Ghubâri Road, 40 m. east of km. 145, rocky island 40 m. north of the road.

Giraffe, gazelle, ostrich, crocodile; cattle. Men, human being with upraised arms. Wavy lines. Sandals. Pairs of rectangles. Statuettes representing a pregnant woman, carefully drawn on slabs or on the surface of the top of the hill.—Greek and Coptic inscriptions. Crosses, pentagrams, and hexagrams. Palm-branch. Ass.—Libyan and Arabic inscriptions, *wusûm*. Men. Boat.

On the surface, stone implements, grindstones.

Site 64. Several rocky hills, 700 to 1,500 m. east of site 63.

Elephant, giraffes, antelopes, ibexes, ostriches, snake; dogs. Men, one with bow. Schematized human beings. Spirals, wavy lines, and other curvilinear compositions. Pair of rectangles. Arrows, maces. Sandals. Drawings of statuettes representing a pregnant woman.

Scooped-out cups. On the surface, stone implements, grindstone, potsherds.

Site 65. Ghubâri Road, about km. 152.

Arab *wusûm*, and obscene drawings.

Site 66. About 2.8 km. north-east of site 63. Two parallel hills, rocky on the north side.

Giraffes, antelopes, ostriches; cattle, goats. Men. Wavy lines. Outlines of feet, sandals. Statuettes of the pregnant woman. Whetting marks.

On the ground, stone implements.

Site 67. Several hills, the first of them about 700 m. north-east of site 66; the others are east, south-east, and south of it.

Giraffes, antelopes, ibexes, gazelles, ostriches; cattle. Men, some dancing. Spirals, circles, wavy lines, curvilinear compositions. Pair of rectangles. Outlines of feet, sandals. Arrows. Very frequently the drawing of the pregnant woman.

Whetting marks. Cups scooped out, in some of which the pregnant woman is incised. These cups are shallow. There is also a different kind: deep and neatly circular. Stone implements, grindstones, ostrich-shells, a few potsherds.

Site 68. Sites 63–7 are situated in a depression. The western limit of this depression is about 3 km. west of site 67. There the whole country is some metres higher. The edge is sharply marked. Facing this drop are several sandstone hills. The top of one of them is covered with inscriptions. It is situated 350° north of the hill at km. 145 of the Ghubâri Road (site 63).

Wavy lines.—Hieroglyphic inscription, signs, probably tribal marks. Ibex, gazelles, hare, uncertain bird perhaps partridge. Men with staves, bows, arrows, man with feather on his head, and club in his hand. Naked woman. Human vulvae. Sandals, many outlines of feet, some with inscribed signs, probably tribal marks.

On the surface potsherds, splinters of flint. The place was possibly at various times a watch-post, for it commands a fine view over the depression east of it.

Site 69. Several hills at the eastern end of the *ḥaṭīya* of Tenīda. Centre about 3.5 km. north-north-west of site 68.

Arabic inscriptions and *wusûm*. Ibex, ostriches; cattle, camels, horses, dogs. Crocodiles swallowing men. Men with bow, with shield and sword, with lance, with throwing-irons, with pistols, with guns. Men on horseback, on camel-back. Row of fettered slaves. Naked women, some beside *angarêb*, the native bedstead. Human hand, outlines of feet, vulvae. Swords, shields. Boats. Railway train. European tent. Square, crossed with lines, probably gaming-board.

On the surface stone implements, ostrich-shells, potsherds.

Site 70. Group of hills north of Khârga village. Western half of this group. Small wadi running from north-west to south-east. The place has been visited and mentioned by G. Schweinfurth. I did not see Schweinfurth's paper before I visited this place. The inscriptions he mentioned at the Gebel eṭ-Têr I have not seen. His name, abbreviated, with the year 1874, is found here as well as that of Golenischeff with the year 1893.

Coptic inscriptions, palm-branches. Outlines of feet, sandals.

Site 71. On the Darb eṭ-Tarfâwi about 125 km. as the crow flies south of Smint in Dâkhla Oasis. Just west of the road, small rocky island.

Giraffes.

Site 72. 'Uwēnât. Mouth of the Kurkur Ṭalḥ. Very short western branch leading to a depression at the base of a cliff. The rock has been washed out by the water of the torrents. The ground underneath is muddy and shows by the deposits that after rainfall there is a pool of water here. Big acacia trees in this wadi. On the north side near this temporary reservoir is a good shelter formed by a rock which sticks out horizontally like a roof, some metres above the wadi level. This roof is covered with paintings in brown, pink, and white colours. The vertical wall below this roof was also painted, and some pictures are still discernible at the top. On a boulder in front of this shelter is a giraffe lightly hammered out. On other boulders nearer to the pool depression are other animals hammered out in a coarse style.

These hammered out animals are giraffes, an antelope, an ostrich; cattle, a dog; and a man. In the painted shelter cattle are represented, men, some with an ornament below the girdle, probably the Libyan sheath, some with bracelets and anklets, or head ornaments, and with bows or staves. Some of the men are dancing, the women wear short skirts.

(The collection of surface finds at 'Uwēnât was made by Mr. O. H. Myers.)

Site 73. Kurkur Ṭalḥ. About 10 km. to the south-west of site 72 the wadi widens, and a high hill stands right across it. The base-camp of the expedition was on the eastern side of this hill. The hills all around are covered with drawings and paintings. All pictures within a radius of about 1,000 m. around the base camp are included in this site 73. Paintings are found only underneath roof-like shelters, most of them on the roofs themselves; few have survived on the vertical walls.

Giraffes, Barbary sheep, antelopes, ostriches; cattle, dogs. Cattle with amulets, with ring-shaped or other ornamentations of the horns. Ostriches, Barbary sheep, and giraffes caught in traps. Men with Libyan sheath (?), with short horn-like head-ornament, with clubs, curved sticks, long straight sticks, bows, shields, 'whips'. Men with up-raised arms. Human beings clothed in a hide, with 'loops' or 'slings'. Women in short skirts.—Camels. Men.

In the washed-out beds of torrents hollows have been here and there scooped out. The

biggest I saw was about 2 ft. deep, narrow at its mouth. They are hollowed out artificially. The water remains a long time in deep holes like these.

Site 74. About 4 km. to the south-west of the hill sheltering the base-camp, the Kurkur Talh bifurcates, a northern branch going straight on westward, and a southern branch turning in a right angle. Site 74 comprises this northern branch, beginning shortly before the bifurcation and ending about 3,500 m. farther on. Three times on the south side this stretch of cliff is interrupted by bays with smooth walls giving good shadow. These are full of engravings.

Giraffes, antelopes, Barbary sheep, ibex, ostriches, flying birds; cattle, ass (?), dogs. Some cattle with horn-ornaments, some with amulets. Ostriches in traps. Men wearing the Libyan sheath (?), wearing feathers on the head, armed with curved sticks, straight sticks, clubs, shields. Men with upraised arms. Women with various head-ornaments. Children.—Camels, men, woman.

Site 75. Kurkur Murr. Near the head of this wadi, about 1 km. to the south-east of the foot of the peak 1323, shelter open to the south. Paintings underneath the roof and on the vertical wall.

Cattle. Men, some with armlets, some with long thin sticks. Women.

Site 76. Kurkur Talh. Branch joining the main wadi from the south at about 1,000 m. east of the base-camp. About 1,800–2,000 m. south of this junction, on the western side, there are rocks with engravings. About 2,000 m. farther a small rocky hill is situated like an island in the middle of the wadi. Here on the western side of the wadi is an extensive shelter with roof-like formations. The place is full of paintings, and on the boulders near by many engravings are to be found. Farther on in the wadi, on the island itself, and on the opposite eastern side, there are again engravings, and a few paintings.

Giraffes, antelopes, Barbary sheep, ostriches; cattle, dogs. Cattle with amulets, cow eating from a manger. Cattle copulating. Hut with pots hanging from the roof. Bow and quiver (?). Men, with Libyan sheath, with strings hanging from the girdle, with strips near the elbows, with sandals, with spotted (painted ?) legs. Men with bows. Women.—Signs, probably *wusûm*, of Arab (?) times.

On the ground in front of the main shelter scooped-out cups, and whetting-marks.

Site 77. Kurkur Talh. About 3,000 m. east of the base-camp. The valley turns here to the north. About 1,000 m. south of the road in this valley are rocks forming a kind of narrow gateway. This gate was once used as a shelter. On the roof, paintings.

Cattle. Man.

Site 78. Kurkur Talh. About 1,400 m. east of the base-camp, north side, boulder, and higher up, rock terrace in front of a wall.

Giraffe, ostriches, some in traps. Men.

On the ground, cup-marks and whetting-marks.

Site 79. Kurkur Talh. About 1,000 m. west of the base-camp a narrow rocky gorge enters from the north. About 250 m. up this wadi is a deep hollow in the rocky bed. Mud deposits show that after rainfall water collects and remains here. Near by on the eastern side is a shelter underneath a roof with a few paintings of men. Underneath this shelter on a rock in the gorge, some engravings. More engravings farther up the wadi.

Giraffes, antelope, ostrich; cattle, dogs. Men, one with stick and shield. Cup-marks on ground.

Site 80. In describing site 74 I said that the Kurkur Talh bifurcates about 4 km. south-west of the base-camp. The southern branch turns south at a right angle and soon afterwards west. About 2,000 m. after this second turning is a long low cave, full of paintings, on the south side of the wadi, 3–4 m. above the present wadi level. This is site 80.

Giraffe; cattle, some with necklaces, one with hoop-like ornament on the horns. Men with armlets, anklets, ornaments below the knees, breast ornaments, spotted (painted ?) legs, sandals, Libyan sheath, strings hanging from the girdle, feathers on the head. Archers.

In front of the cave is a boulder, on which are hammered out cattle, and a man with shield and stick.

Site 81. Going back from this shelter to the northward turning of the wadi, one may go straight on, entering a narrow wadi full of trees. From this wadi a footpath soon leads southward up the hills. If one follows this path and reaches the top, one obtains a fine view of the peak 1323 in the west. Turning now to the south corner of this massif (on the way to site 75 in the upper Kurkur Murr) one crosses a very rocky wadi running south to north. Near the crossing-point on the eastern side of the wadi is a shelter with a few remarkable paintings. This is site 81.

Cattle. Men. One man with circular breast ornament, armlets, fringes below the knees, tail, bow and arrow. Beside him probably dancing-shield and stick. Spider-like stars, probably stools. Big white masses of 'food' on 'dishes' or other supports.

Site 82. Going back the same way and coming out of the narrow wadi, remarkable for the number of its trees, one finds site 82 on the right hand on the way to the base-camp.

In a shelter on the eastern side are some cattle paintings. At the turning of the wadi to the east is a small roof-like shelter. Here an archer is painted holding in one hand a bow and in the other arrows.

Site 83. Southern Gilf el-Kebir. The place has been discovered and 'Rock-paintings' marked on the map by Shaw. High, not very deep, cave, open to the south-east, on the top of a hill, western side of a pass.

Cattle, one with necklaces. Hut with pots hanging from the roof. Man with armlets, long strips hanging down from his girdle, white head ornament, holding a bunch of thin sticks, possibly arrows, in his hand. Running men. Woman.

THE COLLECTED MATERIAL

As in the preliminary report of the season of 1936-7 the material is classified here again under three headings: I. Inscriptions, II. Signs, III. Pictures.

I. INSCRIPTIONS

1. Arabic. The Eastern Desert is crossed by several roads leading to the Red Sea. These roads were until recent times used by many pilgrims on their way to and from the Hegâz. Amongst these were learned men who here and there inscribed their names and some pious formulae at their resting-places. In many cases the idea of doing so arose when they saw the inscriptions and drawings of pagan times. But it was mainly traders, slaves, and raiders who travelled on the roads in the Western Desert. So we are not surprised to find only very few inscriptions, mainly names. Some religious formulae occur in the desert near Dâkhla. These are of very recent origin, probably inscribed by the Senussi. Near by on the rocks are the names of Australian soldiers, their adversaries.

2. Libyan. Inscriptions in these characters have been found only at one site at the Ghubâri Road (Pl. VI. 2).

3. Greek. A few more were discovered near Hôsh, and again at the site with the Libyan inscriptions.

4. Coptic. Last season's work showed that Coptic inscriptions were almost exclusively found in the ancient monasteries near the Nile valley. Several more of these places, monasteries and hermitages, were discovered (Pl. VII. 1). There is one such hermitage near Bâris in Khârga Oasis, and an inscription north of Khârga village may also have been made by a hermit. A few on the Ghubâri Road may be due to travellers.

5. Hieratic, and 6. Hieroglyphic. In the edge of the desert near Nagâda (Pl. X. 1) and near Hôsh (Pl. IX. 1); in the desert around the oases only one (Pl. VIII. 1).

7. Inscriptions in uncertain characters. There is one inscription found near Hôsh which is in a kind of Phoenician characters (Pl. VIII. 2).

II. SIGNS

1. SIGNS OF THE ARAB PERIOD

I have just mentioned the illiterate Arabs who came along the ways in the Western Desert. But every one of these Arabs knew his tribal sign *was̄m*, pl. *wus̄m*. And the rocks on the Ghubâri Road near Dâkhla are crammed with them. They appear to have been recently inscribed. Some are known to belong to Arabs crossing the desert here to-day. For some others my old Arab guide claimed an origin from the Arabs far west of Dâkhla.

At 'Uwênât a few signs are found connected with fresh drawings of camels and men. They are probably tribal marks of the authors of these drawings, the Tibbu. In another place here three signs (76. M 1095) were found at a site where are nothing but the early drawings of the Uwenat Cattle Breeders. They are drawn on a horizontal surface and are fairly well weathered. Drawings on horizontal surfaces obtain a much quicker patina than those on vertical walls (see

RSUE I, p. 34). They are sharply incised, a technique quite uncommon in the artistry of the Uwenat Cattle Breeders. Nothing similar occurs in the whole mass of rock-drawings of 'Uwênât. Therefore it is improbable that they belong to the group of the Uwenat Cattle Breeders. They look much like bedouin tribal marks, but on account of their patination we cannot ascribe them to those bedouin whom we know as visitors to 'Uwênât in recent times.

2. SIGNS OF THE GRAECO-ROMAN-COPTIC PERIOD

Some mason's marks near Hôsh belong to this time, and crosses, pentagrams, and hexagrams in Coptic monasteries or elsewhere in connexion with Coptic inscriptions.

3. EARLIER SIGNS

Site 68 is a very curious place. There is just one single drawing (Pl. XLVI. 2) which was probably done by the men who covered the hills east of this site with their pictures; the idol of the pregnant woman is the characteristic feature in this group. And there is no drawing of the Arab type which abounds on the hills west of this site. The top of the hill, however, is covered with drawings. Some of these represent men. The manner in which they are depicted and an inscription (Pl. VIII. 1) prove Egyptian influence. Possibly many foot outlines are made by the same people. On some of these feet one or two signs are inscribed right in the middle of the sole or beside it (Pl. IX. 2). Every bedouin will recognize his own and his acquaintances' footprints in the sand as we recognize the handwriting of our friends. So a footprint is to his mind a very individual mark. It is therefore quite natural that he puts his tribal mark or marks on or beside his footprint, exactly as we may put a seal below our letter to state the authorship beyond doubt. One started here with this idle pastime and the others followed. This may explain the occurrence of several feet with marks at this very place. (A sandal with a sign inscribed on it of dynastic times has been found in the Eastern Desert (2. M 23), the outline of a foot with a Coptic name written along it (70. M 921) near Khârga.) By the draughtsmen of these feet, further, many human vulvae (Pl. IX. 3) are incised in the stones. This tells us probably that these men were far from any women. So we may conclude that they were here at a watch-post. The situation of the hill affords an outlook to the east. If our interpretation is right, we may further suppose that the village or the troop which had sent them out was in the west. There is to-day Dâkhla Oasis. Possibly these men came from there, expecting the enemy from the east. They watched here at some time in the dynastic period, as these representations of human beings and a hieroglyphic inscription prove.

Finally, a very few drawings which may be signs occur among predynastic pictures.

III. PICTURES

1. ARAB PERIOD

Drawings of this period have been found on the west bank of the Nile near Hôsh and near Aswân, in the Khârga-Dâkhla area, and at 'Uwênât. Near Aswân the drawings (mainly goats at the holy place of a sheikh) are made by children of the Berberine village near by. In 'Uwênât the drawings (camels, dogs, human beings, Pls. XXX, XXXIII. 2) are made by the African bedouin, the Tibu, who visited the place in recent times. In the oasis area an enormous number of drawings have been made by bedouin of various origin, roaming here during the last

centuries. Only these are of a certain importance and shall be treated here. The drawings of this group are dated by the inscriptions which occasionally accompany them, by well-known Arabic *wusûm*, and by the presence of camels.

Fauna. We find the following animals represented in the oasis area: ibex, ostrich, crocodile; cattle, horses, camels, dogs. The crocodiles are swallowing human beings (Pl. IV. 2). In one picture a man seems to ride on an ox, another ox bears a burden (Pl. I. 2). Horses and camels are mostly saddled and ridden. Camels bear sometimes the *hôdag*, or vehicle for women.

Dress. From the back of the head of some men a long plait-like string hangs down. It is probably the string terminating in a tassel which hangs at the back of the *'eqâl*, the crown-like head-dress of the bedouin of Arab origin. A shorter string at the same place represents probably the tassel of the Moorish *tarbûsh* (Pl. V. 1). Three feather-like objects on the head of such bedouin are rather unusual. Some men smoke probably pipes, others have guns (Pl. III. 1). Consequently these drawings are recent. The spurs of horsemen are drawn (Pl. II. 2, V. 1, 2). Outlines of human feet—frequent—are in one instance bordered with nails, proving that the people used nailed shoes or sandals. Two dots at the place of ear-rings in one picture of a woman indicate this ornament (Pl. V. 1).

Weapons. Guns (Pl. III. 1), pistols, and scimitars (Pl. V. 2) are rare, straight swords (Pl. III. 1, V. 1) frequent, lances (Pl. III. 1, V. 1) occur, circular shields are again rare. In one drawing three men on horseback carry the throwing-iron (Pl. II. 2), well known in Central Africa.

Shipping. In the pictures of these Arabs, far from any river or sea, sailing-vessels sometimes occur. One of them shows camels in the bottom of the boat and men on the upper decks (Pl. IV. 1).

Social Life and History. Naked women are often represented; the genital parts are exaggerated and sometimes carefully incised. Scenes of copulation are no less frequent. In one picture two naked women stand beside the *angarêb*, the native bedstead (Pl. VI. 1). In one drawing a row of slaves, chained together, is led by the trader (Pl. III. 2). The men are almost always armed, occasionally fighting each other. These pictures tell us that these Arabs were raiders and slave-traders. As a rule they were here far from their women. We can distinguish two types of these bedouin. One group drew the boats laden with camels and themselves. Apparently they came not from the western sands but from the east, the Nile and Red Sea. They drew also the crocodiles swallowing men—a remembrance of the Nile. These men were of true Arab origin. In the scimitar in the hand of one rider (Pl. V. 2) we recognize further the Arab form of sword. Noteworthy is an unexplained standard-like object in the hand of one of these true Arabs (Pl. V. 2). Is it really a standard?—The other group came from the west and the south. From there they brought the throwing-iron. The straight sword is the favourite weapon of the Hamitic, not of the Semitic bedouin. If we find it here so frequently, it points rather to the south and the west than to the east. This distinction between bedouin from the east, that is, coming more or less recently from the Arabian Peninsula, and those from the west and south, Libya and the Sudan, is confirmed by the *wusûm* found here, and by oral tradition.

The people of Dâkhla Oasis were probably not a little troubled by these bedouin, so near to their fields and villages. Some drawings point to quite recent events, the Senussi troubles; one shows a European tent, with a British soldier sitting inside it on a chair, and near the tent a railway (Pl. I. 1). Another singular drawing was possibly inspired by the British flag which these Arabs saw here in the desert during the War (Pl. II. 1).

Religion. We can hardly expect any religious drawing from the hand of these men. All we find is occasionally the Basmala or Shahada. Further, not one of the drawings seems to carry a magical meaning. It is all idle pastime.

The style of the drawings is as a rule the same stiff one as observed in the Eastern Desert. Animals and men are not seen as plastic entities but as the sums of trunks, limbs, heads, hair, and equipments. This leads often to more or less geometrical schematizations. It is the style which can generally be observed in the drawings of the true Arabs. In the drawings which point to Hamitic bedouin as originators we find more sense of the plasticity of bodies.

The technique is mostly incising. The sandstone at the main site, the *ḥatîya* east of Dâkhla, is so soft that one may incise it even with a stick.

2. GRAECO-ROMAN-COPTIC PERIOD

Besides a very few drawings of uncertain authorship of this period many Coptic pictures were found, partly incised, partly painted in red colour.

Fauna. Gazelles, a peacock, a dragon. Three fishes arranged to form a star (Pl. VII. 2) may be of Coptic origin, or they may be much earlier.

Dress. In one case a man wears a shirt with trimmings. At another place sandals are drawn on a horizontal surface.

Weapons. Round shields and straight swords occur. In one instance a man on horseback is brandishing his sword.

Religion. The man on horseback may represent one of the warlike holy men of the Coptic legends. The dragon painted in a hermitage is surely an animal of some religious meaning; it may be the dragon of hell, or it may be the beast which swallowed Jonah. The peacock (and the fish) originated from Coptic religious symbolism, as did palm-branches.

The pictures are too few for us to say much about their style. What we see is very poor indeed. I was always deeply impressed in visiting these Coptic monasteries in the desert near the towns. During three thousand years the Egyptians had displayed the most refined civilization. The reason for its beginning is enigmatic, and enigmatic the reason for its decline. And then the sons of these gay contented Egyptians succumbed under the wave of the new ideal of asceticism spreading suddenly all over the countries of the ancient Near East, involving the countries north and east of the Mediterranean, reaching Ireland in the far west and Turkestan in the east. And this ideal pushed the happy Egyptians out of their towns and villages, out of their green fields into the severe barren desert, to mortify their flesh.

In the time of Egypt's grandeur every man wanted to leave lasting traces of his existence in the visible beautiful world of the Nile valley. In the time of the Coptic monks men distrusted the beauty of the world, they no longer wanted to show that they had lived on the earth, they wanted to get rid of their simplest manifestation, their bodies. Necessarily their artistic productions must be poor, that they occur at all is surprising.

3. DYNASTIC PERIOD

We expect and find dynastic remains at the edge of the desert bordering the Nile valley. In the desert around the oasis remains of this time are rare. Indeed, only at one site did I find drawings displaying the style of Dynastic Egypt. This is site 68 near Dâkhla Oasis. In referring to the signs collected there I have already pointed out the peculiarity of the place. In the

following description of the dynastic pictures I give the number of this site after each feature observed there.

Our means for ascribing a picture to the dynastic period are the accompanying inscriptions and the style. But an uneducated man of this time, for instance a bedouin, will not betray by any inscription, and hardly by the style, that he made his drawing in dynastic time. Not far from Hôsh, for instance, some coarse pictures of cattle and men occur. They may belong to any time. Now at one place these coarse drawings superimpose dynastic ships, and on top of these coarse drawings dynastic ships are again imposed. So we must conclude that these men lived in dynastic times. More important, not far from this site, are drawings of curious naked people with hair radiating from their heads (Pl. XII. 2). They are arranged in groups, and these groups are encircled by lines, possibly indicating that the people within the line belong together. One human being is shown upside down and attacked by crocodiles. We may not be wrong in understanding that the poor fellow had been devoured by these beasts. This interpretation is the more probable as the pictures face the river. Connected with this group is an archer who is shooting at one of the men. A dog attacks the men from the other side. The archer's chest is formed by a triangle, the legs are extensions of the long sides of the triangle. People of this shape are occasionally accompanied by dynastic inscriptions. This leads us to suppose that these curious people with the extraordinary hair-dressing were savages who came down here to the Nile at some time in the dynastic period and had unpleasant experiences with the crocodiles, the dogs, and Pharaoh's police.

Fauna. The following animals are encountered in dynastic drawings: antelope (68 and elsewhere), gazelle (68), hare (68), lion, leopard or other felida, hippopotamus (Pl. X. 2), bird, probably partridge (68), crocodile, fish (Pl. X. 1); cattle, dogs.

Dress. Some of the men represented at site 68 wear a stiff kilt pointing forwards in an unusual manner (Pl. XI. 2). Another man at this site wears a kind of apron at his back and what is probably the Libyan sheath (Pl. XI. 1); another has a single long feather on the top of his head, and another seems to wear a pointed beard (Pl. XI. 2).

Weapons. Staves are frequently seen in the hands of dynastic men (68 and elsewhere, Pl. XI. 2). The man with the feather at site 68 carries a club. Bows occur several times. Noticeable is the archer at site 68 (Pl. XI. 1). He holds a broad-tipped arrow to his bow, and a bunch of arrows in his hand.

Hunting. Probably this man is hunting; beside him are wild animals. Another hunting-scene was found near Hôsh: a man shoots his arrow right into the mouth of a kind of leopard.

Shipping. Boat-drawings (Pl. X. 1) abound in the sites along the river. Many of them may have been made because the draughtsman saw them before his eyes on the river, others are distinctly connected with the dead.

Social Life. Already in dealing with the earlier signs I mentioned the human vulvae found at site 68; one of them seems to be tattooed (Pl. IX. 3).

Religion. Many of the boat-drawings may convey religious ideas. At site 45—full of such drawings—is a deity with the head of a ram surmounted by a Uraeus with the sun-disk (45. M 545). At the same site several hippopotami are drawn (Pl. X. 2), one of them mounted on a stand, suggesting a sculptured image of the animal, possibly a cult-object.

The style of the dynastic drawings is as a rule unmistakable. The full final treatment will possibly enable us to ascribe certain drawings to certain periods.

The technique of the dynastic drawings is sometimes the primitive hammering out, sometimes smoothing of hammered-out surfaces. Occasionally the surface has been smoothed before the draughtsman cut his picture. In the soft limestone at site 45 the artist probably incised some of his drawings with a metal instrument, which he used with the same precision as a modern artist uses his pencil or his pen.

4. UNDATABLE EARLY, PREDYNASTIC, AND PREHISTORIC PICTURES

The majority of the material collected in the season of 1936-7 did not belong to the historic periods: Arab, Graeco-Roman-Coptic, and dynastic. Mainly by the absence of accompanying inscriptions, and by the presence of an early fauna, and partly by relations established between some of these drawings and pictures on predynastic remains in the Nile valley, we could date them as early. Among these early rock-drawings we distinguished four groups: A. Autochthonous Mountain Dwellers, B. Early Nile-valley Dwellers, C. Eastern Invaders, D. Earliest Hunters.

The Autochthonous Mountain Dwellers were cattle-breeders, probably the forefathers of those peoples whom we know in historic times as speaking Hamitic languages. Their rock-drawings were found in the Eastern Desert as well as in the Sahara. They cover by far the largest space. They were already present at a time when giraffes and elephants still roamed over the deserts of to-day. They continued to live in the manner of their forefathers probably right up to dynastic times. Indeed, I believe that the Blemians and the modern Hamitic bedouin in the Eastern Desert are their descendants. The researches of the season of 1937-8 gave rich evidence of these Autochthonous Mountain Dwellers in the Western Desert. At 'Uwênât and in the Southern Gifl they are represented by an unusual quantity of rock-pictures. The area is separated from the Eastern Desert as well as from other provinces of their ancient habitat in the further Sahara by long waterless tracts. So 'Uwênât with the neighbouring Gifl forms in itself an entity, and we shall treat the Autochthonous Mountain Dwellers of 'Uwênât in this report as an entity, as the Uwenat Cattle Breeders.

An archaic civilization has been discovered near Dâkhla. These people are called in this report Early Oasis Dwellers.

Of the Early Nile-valley Dwellers and of the Eastern Invaders some drawings have been found at the edge of the desert bordering the Nile.

The group of the Earliest Hunters was observed all along the Nile and in the oasis area.

A. Early Nile-valley Dwellers

The new material is scanty. A small group of their drawings was found in the Wâdi Rizêgât. The place is some hours distant from the cultivated land, and an old road leads along the wadi to the oases. Here there is a boat-drawing (Pl. XV. 2), and a curious phallic man—one of the smallest drawings hitherto found—with raised arms and abnormally large hands (?) is probably drawn by the same artist (Pl. XIII. 2). Among the animals a kind of leopard is noticeable: a series of parallel lines touch his backbone (Pl. XVI. 1)—a trap? This animal may have been made by Early Nile-valley Dwellers, or it may be much earlier. Further, several boats of these people have been found at Hôsh (Pl. XV. 1). At site 53 on a vertical wall is the somewhat schematized drawing of a man (Pl. XIII. 1). Behind him is a Barbary sheep. A line from his hand to the neck of the animal gives the effect of his leading this wild sheep. It is more

probable that his hand holds a throwing-stick which accidentally touches the neck of the animal. In front of the man are two dogs, greyhounds. To the right of the dogs stands a big giraffe. Not far from this wall is a large horizontal surface covered with drawings of the Earliest Hunters (Pl. LVIII. 1). On one side are two or three ships of the sickle-type (Pls. XIV, XVI. 2). A giraffe and an ostrich near one of the boats (Pl. XIV. 2) are by the same hand. This giraffe is of the same kind as the one which seems to be attacked by the greyhounds. There are other giraffes at this site, done by the Earliest Hunters. They are unmistakably different (Pl. LIV. 2). We must therefore conclude that the man, the greyhounds, the two giraffes, the ostrich, and the boats belong together. To this group belong, further, well-worked throwing-sticks and sandals (Pl. XVI. 2). The reason for ascribing this group to the Early Nile-valley Dwellers is the presence of their boats. We have from site 34 near Armant a similar group: men, dogs, game, throwing-sticks, and boats (*RSUE* I, p. 30 sq., pls. XVI, XIII. 1, and XXXIV. 13 and 17). At this site near Armant we noticed the difference of the drawings from the usual style of the Early Nile-valley Dwellers, a difference pointing to an influence from the Autochthonous Mountain Dwellers. Here near Aswân we have in the exaggerated buttocks of the man a feature of the style of the Autochthonous Mountain Dwellers. The well-drawn dogs here and in the site near Armant are, moreover, the same greyhounds as are found among the Autochthonous Mountain Dwellers. For traces of an influence on or even an admixture of the Autochthonous Mountain Dwellers with the Early Nile-valley Dwellers see the paper *Early Ethnology of the Libyan Desert*, &c., cited on p. 2.

B. Eastern Invaders

Their pictures were found near Hôsh and near Aswân.

Fauna. The following animals occur: antelope, ibex, ass; dog. The asses show the peculiarity of a straight or curved stroke issuing from the back of the head, as already observed in pictures of these people in the Eastern Desert (*RSUE* I, p. 26).

Dress. Feathers on the head are the characteristic of the Eastern Invaders. They occur again here. In the centre of a boat stands the captain much larger than the crew. He wears two feathers on his head, one bent to the right, the other to the left. The crew is represented by vertical strokes with thick heads. On these heads are one, three, or five (?) small vertical strokes, the feathers (Pl. XVII. 1).

Shipping. It is the form of the boats which tells us that we have to deal with the Eastern Invaders. They are of the square type. We often found prow-ornaments on boats of this type collected in the Eastern Desert. Here they appear again in various shapes (Pl. XVII).

Style and technique are the same as those observed in their drawings in the Eastern Desert.

C. Autochthonous Mountain Dwellers (General)

The characteristics of the Autochthonous Mountain Dwellers are the following: they are widely distributed in the deserts, they persist through a long period of time, cattle-breeding is their livelihood, the Libyan sheath is their typical garment, their style is based on an artistic observation of human and animal bodies, joints and curves are represented, their artistry is dominated by a sense for plasticity. In the earliest drawings an exaggeration of this plasticity is outstanding: the chests of human beings assume a triangular, wedge-shaped form, the shoulders are sometimes raised. We find a clearly delimited province of these Autochthonous

Mountain Dwellers in 'Uwênât. Before describing these Uwenat Cattle Breeders as an entity it must be mentioned what remains of these Autochthonous Mountain Dwellers have been discovered on the west bank of the Nile and on the way to the Oasis of Dâkhla.

The distribution of rock-drawing sites of the Autochthonous Mountain Dwellers is as follows. We find them in the Eastern Desert in the wadis which still to-day produce some considerable vegetation, and where wells are near at hand. We find them in the Western Desert in 'Uwênât—this name means '(little) wells'—and a few traces of them in the poorly watered Southern, and many in the well watered Western, Gilf el-kebîr. We know further pictures suggesting that in the south they reached at least the Ennedi in the French Sudan, and in the west the Tassili mountains in the Central Sahara (see the paper mentioned on page 2, *Early Ethnology of the Libyan Desert*, &c.). In the Eastern Desert and in 'Uwênât including the adjoining Gilf we see that they prefer valleys with rich vegetation, and that they concentrate there. The accumulation of rock-drawings at those places and the lack of rock-drawings of this people in the intermediate spaces is a proof of this concentration of the Autochthonous Mountain Dwellers at such 'pasture oases'. Knowing that their livelihood was cattle-breeding we understand their dependence on the pasture land. If we imagine a scale showing the various degrees of mobility of human beings, we see exactly the place of the cattle-breeders. The frame for such a scale is here the early landscape of a steppe, including arid stretches, mountain massifs with wells and green wadis, and depressions with fertile soil and a large enough water-supply for agriculture. The hunter will cover the whole of this space; he is the most mobile. The cattle-breeder sticks to his cattle, and this cattle to the pasture-land. He may be compelled to cross long arid tracts to reach new pasture-grounds, but he will then again remain in the limited area of the new pastures as long as possible. The fellah will stick absolutely to the soil he is cultivating. The distribution of rock-drawings perfectly confirms this theoretical view. We can therefore well understand this concentration of the Autochthonous Mountain Dwellers at pasture oases, far apart from each other. In an early time of larger rainfall communication was possible over wide tracts, for instance from 'Uwênât to the Eastern Desert, and was a fact. Increasing desiccation first isolated the groups of the Autochthonous Mountain Dwellers in their various pasture oases, and finally drove them out of them—one group one way and one another.

I have made this digression in order to understand why we find drawings of the Autochthonous Mountain Dwellers in compact masses at the pasture oases and so very scantily between them.

Near Hôsh is a fine drawing of a man leading a gerenuk-gazelle (Pl. XVIII. 1). The elegance of the conception and the well-observed curves of the bodies of animal and man lead us to ascribe it to the Autochthonous Mountain Dwellers. Unfortunately the detail of dress at the girdle of the man is uncertain. We should expect a Libyan sheath.

Some hours south of this drawing is another quite different one (Pl. XII. 1). It shows a man with a big bow in one hand, and a short stick in the other. The man seems to wear the Libyan lock, and a curious kind of shirt with a large protuberance at the place of the genitals. The curved buttocks suggest at least some artistic tradition from the Autochthonous Mountain Dwellers. The picture is incised with a sure hand. This technique recalls drawings of dynastic times.

Finally two quite isolated drawings of men may be done by Autochthonous Mountain Dwellers. They were found between Khârga and Dâkhla. Each represents a man with abnormally exaggerated hands and feet (Pl. XVIII. 2, 3). The raising of the shoulders and the slight

indication of the buttocks of one of them, the large upper thorax and thin waist of the other, suggest that Autochthonous Mountain Dwellers were the artists.

D. Autochthonous Mountain Dwellers: Uwenat Cattle Breeders

'Uwēnât is famous for its rock-paintings. I have already pointed out that we owe the preservation of these paintings mainly to the fact that the layers of sandstone here are rich in cave-like shelters. There are hundreds of paintings and hundreds of engravings. This extraordinary quantity proves by itself that these pictures are the result of a long period of human occupation. If we try to classify this mass of material, we discover first one kind of engravings—few in number—which differ from the others by their fresh patination. In these drawings camels and human beings are represented. It is known that bedouin come from time to time to these wadis, and we find their remains: there are huts of mats, stables for sheep or goats consisting of stone enclosures underneath the shelters, pieces of leather pots, a water-bag made from a fox's skin, high mounds of the husks of colocynth seeds, and near-by grindstones—they made flour from these seeds. No connexion between these camel-owners and the earlier draughtsmen is visible in the rock-pictures. They seem to be separated by a considerable lapse of time. We may therefore set aside this recent material from the rest of the rock-pictures at 'Uwēnât. In this bulk no distinct groups—proving different peoples—are discernible. It is noteworthy that there are some superimpositions. In the painted shelters they prove the sequence of several styles. Engravings of giraffes and ostriches appear occasionally underlying those of cattle. In these few cases we learn merely that the game had been engraved before the cattle, but whether by a different people we do not know. Some giraffes and antelopes recalled to me drawings of the Earliest Hunters. But not one of these animals bears unmistakable characteristics of the Earliest Hunters' art, and further no men of the Earliest Hunters' style occur, and no spirals, wavy lines, &c., typical and common in the drawings of the Earliest Hunters. So we can hardly assume that a population earlier than the cattle-breeders manifested itself in the rock-drawings. We have to treat the whole as an entity, records of one single people, living here for a very long period.

If one studies the paintings and the engravings one doubts at first whether both kinds of pictures were really done by the same people. There are such remarkable differences in style and subject that one is inclined to think that there was one people who painted and another who engraved. But a closer study shows that paintings and engravings must be the work of the same people. The differences are the more surprising and will lead us to some conclusions about the social organization of these cattle-breeders. Later on I shall separate what is characteristic of the engravers, what of the painters, and what both have in common. At present I shall deal with both together, paintings and engravings.

Fauna. The following animals occur: giraffe (Pls. XXXI, XXXII. 2), antelope (Pl. XXXVIII), gazelle, gerenuk-gazelle (?), ibex, Barbary sheep, lion (? Pl. XXXI), ostrich (Pls. XXX. 1, XXXI. 2, XXXII. 2, XXXIII. 1, XXXVIII. 2), uncertain birds (Pl. XXXII. 2); ass (?) (Pls. XXX. 1, XXXIII. 1), cattle (e.g. Frontispiece, Pls. XX. 2, XXIV. 1, XXVI. 2, XXVII-XXX, XXXIII. 2, XXXVI, XXXVII), dog (Pls. XXXII. 2, XXXVIII. 1).

Dress. We learn more about dress from the paintings than from the engravings. The following details of men's dress can be observed. One man seems to wear two short locks or plaits, recalling somewhat the hair-dress of modern 'Abâbde and Bishārīn (Pl. XXX. 1). Certain paintings suggest that the men wore short pointed beards (Pls. XX. 1, XXI. 2), but I am

inclined to see in these cases no more than a stylized representation of a human head; women, too, appear with the same pointed chins (Pl. XX. 1). Or perhaps the artist shows in these cases the 'bobbed' hair of men and women.

On some occasions, probably ceremonial, human beings wore animals' hides (Pls. XXXIII. 2, XXXIV). Unfortunately we do not know whether the people are men or women. In one case a man wears a tail (Pl. XXV. 1). It is noteworthy that he wears it in front and not at the back. In most cases the men appear undressed, but the genital part is covered, apparently by the Libyan sheath, consisting of one broad white strip (e.g. Pls. XIX. 1, XXI. 2, XXVI. 1, XXVII. 1).

Sandals are depicted on the feet of men in a few paintings.

Besides this practical dress we learn something about bodily ornaments. Men occasionally wear feathers on their heads (e.g. Pl. XXX. 1), or two short 'horns' or two or three small 'balls' (Pl. XXI. 2). Sometimes these 'balls'—perhaps some small feather-work—are arranged to form an effective kind of crest (Frontispiece, Pls. XIX. 1, XXI. 2).

Various strings—probably strips of hide or tails of animals—were used as ornament. In one picture a white string hangs down from below the shoulder of a man (Pl. XXII. 1). With this string may possibly be compared a white line across the chest from the shoulder to the waist in the painting of another man (Pl. XXV. 1). Strips worn near the elbows occur occasionally, and further 'garters' below the knees (Pl. XXV. 1). The Libyan sheath is sometimes adorned with one (Pl. XXI. 2) or more (Pl. XXI. 1) strings issuing from the girdle. Occasionally long strings reach from the girdle to below the knees (Pl. XXII. 2), sometimes drawn in an elegant bell-shape (Pl. XXVII. 1).

Fairly common are bracelets (Pls. XX. 1, XXI. 2, XXV. 1), armlets (Pl. XXVI. 1), and anklets (Pl. XIX. 1). In one instance a man wears a large ring hanging on his chest (Pl. XXV. 1).

Occasionally the legs (and the chest?) of men are covered with white spots; probably they were painted (Pl. XXVI. 1).

As women's dress the following is found. They wear—if anything—short skirts (Pls. XX. 1, XXII. 1). From our modern European standard it is remarkable that so little fashion is displayed by these daughters of Eve. One woman wears two 'feathers', and another beside her two little 'balls' or 'horns' on the head (Pl. XXX. 2). Another woman is ornamented in the most curious way: two big 'horns' start from her shoulders, framing the head (Pl. XXXI. 2=XXXII. 1).

Weapons. Straight or slightly bent sticks, sometimes short, sometimes considerably longer than a man (e.g. Pl. XXXV. 1) are frequent. Further, sticks bent to a right angle are found (Pls. XXXIV. 2, XXXV. 2, XXXVI. 2), probably throwing-sticks. As a rule the end in the hand of the man is the longer one, but one man holds the shorter end; perhaps here the bent thing is another implement (Pl. XXX. 1). Very slightly bent sticks becoming wider towards the end look like effective throwing-woods. A surprising variety of clubs is represented in the drawings. Among these are straight ones with heavy knobs at the end (Pl. XXX. 2), slightly bent ones with enormous knobs (Pl. XXX. 2), sharply bent ones with knobs of varying thickness, very short-handed crooks and straight-shafted sticks with hammer-like ends (Pl. XXXVIII. 1). A shafted stone axe may be represented in one picture (Pl. XXXV. 1).

Bows are less frequent. Several forms occur, one comparable to the bow of a violin (Frontispiece), another seems to be of the 3-shaped type (see *RSUE* I, p. 21). Others are distinctly of the C-shaped type (Pl. XXV. 1). Curious is the painting of a bow apparently

hanging on the wall and something beside it which may well be a quiver (Pl. XXVI. 2). Bundles of white dark-tipped sticks (Pls. XXIII, XXIV. 1) may be arrows. But it is curious that these 'arrows' seem to fly in bundles.

Shields are frequent. They display again a remarkable variety of forms. One form is circular (Pl. XXXV. 1), but this is the exception. More or less elliptical shapes occur several times (Pl. XXXIII. 2=XXXIV. 2). Rectangular shapes (Pl. XXXV. 2) sometimes become narrower in the central part. One queer shield looks rather like a ladder (Pl. XXXIII. 2=XXXIV. 2) and two others display a cross-lined pattern (Pls. XXXIII. 2, XXXIV. 1), possibly a schematized representation of a leopard-skin.

Some men hold whip-like implements (Pls. XXXIII. 2, XXXIV. 1). The people in animals' hides always brandish curious 'loops' above their heads (Pls. XXXIII. 2, XXXIV).

Hunting. In one engraving a man with a bow is associated with a group of Barbary sheep chased by dogs. The scarcity of real hunting-scenes is noteworthy. Trapping was probably the main craft of the hunter. Ostriches are several times represented in traps (e.g. Pls. XXXIII. 1, XXXVIII. 2), once a Barbary sheep, and once giraffes. Sometimes only a rope leading from the foot of the ostrich to a peg shows that the animal is in a trap. Game caught in this way is frequently seen in drawings of the Eastern Desert (*RSUE* I, p. 21). Other ostriches and the Barbary sheep show the rope leading from the foot not to a peg but to a kind of bow (Pl. XXXVIII. 2). A drawing in the Eastern Desert represents an ass caught in a trap, and below this sketch a curious object is depicted which I supposed to be a form of unknown trap (*RSUE* I, Pl. XIX. 2). A bow is probably essential to this trap. We may possibly see in the 'Uwēnât pictures this bow-trap after action. The rope holding the feet of the giraffes leads in each case to a peg bifurcated at the top.

Economics and Social Life. Cattle are more frequently represented than anything else in the paintings and engravings. No doubt cattle-breeding was the livelihood of these people. The udder is in many cases drawn with much care and delight, occasionally it is extremely exaggerated. Evidently the breeders appreciated the milk. As a rule the udder is placed between the hind legs of cows shown in side view (Pls. XXIV. 1, XXVI. 2, XXVIII, XXIX). Now the udder of a cow seen in side view will actually be visible partly in front of the hind legs, partly hidden by one leg. If the 'Uwēnât artist shows the whole udder largely visible between the hind legs, we must conclude that he used to milk the animal from behind. He undoubtedly made his drawings from memory; with his nose close up against a wall, often in a cave, he could not at the same time have the living animal before his eyes. Then, when he arrived at the hinder part of the cow, milking and the view from behind came to his mind. Sometimes cattle are painted as lying on the ground, one cow is feeding out of a manger (Pl. XXVIII. 1). In another picture a red bull copulates with a white cow. It seems to prove that the breeders intentionally sought to obtain handsome mottling by such unions. And in the hammered-out as well as in the painted work the mottling is represented with evident enjoyment. A kind of mottling like a girth across the animal's body (Pl. XXXVII. 2) is common. Some cattle wear necklaces (Pl. XXVIII. 2), others strips hanging down from the neck, probably amulets (Pls. XXIX. 1, XXXIII. 2=XXXIV. 2), others wear various ornaments at their horns (Pls. XXXVI, XXXVII). In two instances men are standing on the backs of cattle (e.g. Pl. XXVI. 2).

Once or twice animals occur which may be donkeys. A child is sitting on one of them. Dogs are common (Pl. XXXVIII. 1).

There are a few interesting drawings of ostriches picking up grain (Pl. XXXIII. 1). It is more probable that tame ostriches are represented in this peaceful scene than wild ones. On the same wall a child is playing with an ostrich (Pl. XXXII. 2), proving that ostriches were occasionally tamed by these people. In two pictures human beings, probably women, are touching giraffes below the neck (e.g. Pl. XXXI. 2). This suggests that giraffes too were occasionally tamed.

Among the human beings the frequent occurrence of men holding up shield and sticks (Pls. XXXIII. 2, XXXIV, XXXV, XXXVI. 1) is noteworthy. In site 81 one man is particularly remarkable (Pl. XXV. 1). He is himself ornamented with bracelet, breast ornament, tail, and garters, and holds bow and arrow. At his side is a very enigmatic drawing, a kind of 'cushion' connected with a long 'feather'. I supposed that this 'cushion' was a kind of shield, but the 'feather' I could not explain at all. One day I showed this painting to Mr. D. Newbold. Not only were the garters well known to him from his Kordofan tribes of the present day, but he also explained the 'feather'. He remembered a festival of the Nuba of the Otoro hill-group of Kordofan where young male dancers flourished long spears and throwing-sticks with fringes. They held these sticks with their shields in one hand. The 'feather' in this old rock-painting is probably an ornamented dancing-stick of this kind. Fighting-scenes are absent, so one supposes that the men so often represented with shields and sticks are in their ceremonial dancing equipment. No doubt sticks, clubs, and shields were useful weapons for fights, but the frequent attitude of upraised arms and the absence of fighting-scenes already mentioned suggest that dancing was more in the mind of the artist.

A row of running men more or less ithyphallic is unique. They seem to run to another bigger ithyphallic figure above them. The runners are all connected by a kind of rope (Pl. XXIV. 2). Copulation scenes are conspicuous by their absence from this unusual quantity of pictures.

In two instances huts are depicted (e.g. Pl. XXII. 2). In each of them pots hang down from the roof. The inside of these pots painted white suggests milk.

On one site brown spider-like 'stars' are painted beside more inexplicable white 'cakes' on brown supports (Pl. XXV. 2). In the Tassili Mountains M. Reygasse found rock-paintings showing archers sitting on such spider-like 'stars'.¹ So we may conclude that here too these stars must be stools, and then the white stuff on the brown support may be food. Indeed, in one case the brown support bearing such a high 'cake' has clearly the shape of a dish on two or three legs.

Paintings are found—at least those which have survived—in cave-like shelters. I avoid the term 'cave' because as a rule these shelters are not very deep. Three yards may be given as an average figure. They are usually much wider than deep, averaging ten yards or so. The height varies in each shelter itself and from shelter to shelter. In some places the roof comes down so low that a man can just lie beneath it, in other places he can sit, in others he can stand. Shelters of this kind may contain paintings if they are situated on good pasturing-grounds—as the vegetation of the present day proves—or near water-supplies; in other words, in places suitable for a permanent stay. The engravings are more scattered. They are found all around the wadis.

Engravings never occur on walls bearing paintings. To a large degree this can be explained by the position. Many paintings are made underneath the roofs of the cave-like shelters. Nobody would like to make an engraving there, because to hammer out a drawing on a horizontal surface above the head must be tiring work for the muscles, and secondly the chipped-out stone

¹ M. Reygasse, *Gravures et peintures rupestres du Tassili des Ajjers*. *L'Anthropologie*, 45 (1935), 563.

will all fall into the eyes of the artist. But we find paintings on the vertical walls of the shelters. Here too there are no engravings. The only reason can be that the engraver respected the painter. He engraved drawings close by on vertical walls not used by the painter, or on the ground, or on boulders in front of the shelters, but he did not touch the walls which we find full of paintings. And these walls are the best-sheltered places.

Paintings and engravings have the following subjects in common, which proves that it was really the same people who made the paintings and the engravings. I arrange the identical or comparable features in the following table.

<i>Paintings</i>	<i>Engravings</i>
1. Cattle is the main subject.	1. Cattle is the main subject.
2. Mottling of cattle.	2. Mottling of cattle.
3. Schematized mottling: a ribbon-like girth.	3. Schematized mottling: a ribbon-like girth.
4. Udder between the hind legs.	4. Udder between the hind legs.
5. Horns in a few cases pointing forwards like the horns of a gazelle (e.g. Pls. XXIV. 1, XXVIII. 2).	5. Horns in a few cases pointing forwards.
6. Necklaces of cattle.	6. Amulets hanging from the neck of cattle.
7. Hoop-like ornament above the horns.	7. Circle-shaped ornament on a bull's forehead.
8. Man standing on a cow.	8. Man standing on an ox.
9. Man with tail.	9. People clothed in a hide with a tail hanging down.

In the following table I show the divergences between paintings and engravings, giving after every feature the number of times it occurs in the paintings and the engravings. In addition I indicate the peculiarities prevailing in each group.

	<i>Paintings</i>	<i>Engravings</i>
Giraffe	2	74 E
Antelope	1	16 E
Gazelle	—	1
Ibex	—	2
Barbary sheep	—	10 E
Ostrich	—	104 E
Game (ostrich, Barbary sheep, giraffe) in trap	—	10 E
Dog	—	20 E
Ass	—	2 (?)
Cattle	129	114
Bull	7	47 E
Cows with udders between the hind legs	35 P	4
Cows with udders in front of the hind legs	1	3
Cattle lying on the ground	7 P	—
Cattle copulating	1	—
Cow feeding out of manger	1	—
Men	77	74
with curved sticks	—	9 E
with straight sticks	2	23 E
with clubs	—	5 E
with shields	1	20 E
with 'whip'	—	3
with bows	11 P	2
Women	10	8
in skirts	5 P	—
Huts	2	—
Male figures deliberately damaged	5 P	—

This comparison is highly surprising. The engravers are interested in game, in trapping, in dogs, in bulls. Their weapons are bent and straight sticks, clubs, shields, but rarely the bow. Their women are undressed.

The painters are not interested in game and hunting and not in bulls, but in the udders of their cows and in the peaceful behaviour of cattle. Their men carry the bow, half of their women are not undressed but wear skirts. The painters show huts with the milk-pots hanging from the roof.

I am convinced that the paintings and the engravings are made by the same people. So this extraordinary difference must be explained as the result of two different social groups within the same people.

This leads to the following conclusion. The shelters are the dwellings of the married people. Here the families lived. Hence the interest in huts, in cows, in udders, in milk-pots. The skirt seems to have been the dress of the married woman, and the bow the main weapon of the married man. As elsewhere in primitive societies the grown-up lads were kept out of doors. They lived somewhere near these family homes outside these good shelters. And here outside they drew on the rocks what they had in their minds: giraffes, ostriches, and other game, trapping and dogs. They enjoyed the power of the bull, and displayed their dancing equipment: sticks, clubs, and shields.

If our conclusion is so far right, we must explain why the people in the homes of the families painted and why those out of doors engraved. The answer is that in all probability the painting was done in most cases by women.

A few male figures in the shelters are deliberately damaged. Two sharp incised strokes cross the breast of one man, while the head is blotted out; another is chipped out, from his private parts up to his head (Pl. XXVI. 2); and another shows some blows near his privates (Pl. XXV. 1). Did furious women release here their hatred against faithless husbands or lovers? If that is the case, we learn that these men, and so probably the women and the animals in the pictures, represent distinct individuals.

If we are still right with our conclusion we may go a step farther and consider that women must have had a respected position in this society. The regard for the paintings by the engravers points to that. Further, the absence of any copulation scene or obscenity in the whole material is explainable as a result of the tact prevailing in sound societies where women are respected. The row of ithyphallic runners (Pl. XXIV. 2) seems more to represent people in a ceremony than an idle obscenity.

I have to insert here that at site 80 a scene of fighting archers has been painted. This picture can scarcely have been done by women but rather by men. Unfortunately I was not able to make a photograph or a drawing of it. Almásy gives in his *Récents Explorations dans le Désert Libyque*, Pl. VII, a sketch of such a scene. I suppose it to be the same which I saw.

Religion. About the religion of these cattle-breeders we learn very little. That cattle played a role in their mythology we may naturally expect. If strips hang down from the neck of cattle, we may suppose that they are amulets to protect the individual animal. Ornamentations of the horns may convey another meaning. Several times animals are drawn with accessory 'horns' (Pls. XXXVI. 1, XXXVII. 2). I do not know how to explain this. In one instance an engraved bull wears a ring or disk surmounted by the segment of a circle on his forehead (Pl. XXXVII. 1), and a painted ox has a hoop on his horns. Another engraving shows a small

horned animal with a round object on his head. In these cases ceremonial animals are probably represented.

The style differs to a certain degree between paintings and engravings. The paintings strike one in many cases by the vividness and grace of the movements. The engravings generally look stiff. The difference of technique explains this. With a brush or a similar implement and colour one can make a picture in a few minutes, and without any physical effort. But to hammer out of a rock surface a picture with a stone takes incomparably more time, and demands considerable effort. The painter has a certain human being or an animal in his mind. The subject he imagined flows, so to speak, immediately with all its movement out of the artist's hand on to the rock. The engraver on the contrary will have forgotten all about the movements of the arms and legs when he arrives in his work at these points. He has no longer the movement of a man or an animal in his imagination but an abstract recollection of what composed a man or an animal. If we ourselves write our name with pen and ink, all our mood is visible in this quick and easy work; if we cut our initials in a tree or a stone, the result of our effort looks stiff and lifeless.

The pictures of these painters may justly be called works of art. A very precise style is observed. It is the particular style already observed among the Autochthonous Mountain Dwellers, here in 'Uwēnât at its highest perfection. I have called it the style of balanced exaggeration (*Early Ethnology of the Libyan Desert*, &c.): shoulders of human beings are wider, waists thinner, than in nature, and also the hips and buttocks are again broader, and the legs heavier and longer, than in nature. This is against all anatomy but extraordinarily effective. Further evidence of this exaggerating style is the raising of the shoulders (Pls. XIX. 2, XXII. 1), and the protrusion of the faces (Pls. XXIII. 1, XXIV. 2). In the finest specimens we observe beyond this exaggeration an entirely free treatment of anatomical features. In these cases the neck is transposed from its central position between the shoulders on to one of the shoulders (e.g. Frontispiece); again the artistic effect is considerable; it endows the figures with life. This masterly handling of anatomical features proves to my mind that these people were conscious of what is art. Not for magical purposes or idle leisure were these pictures created, but for the love and joy of art. And this makes these simple cattle-breeders so extremely sympathetic to us. Even among the engravings occur drawings displaying this pure artistic spirit. The child playing with an ostrich and above it a line of flying birds (Pl. XXXII. 2) could only be conceived by an artist.

The material collected at 'Uwēnât covers a long period. When we have at our disposal a richer collection comprising all the paintings still to be discovered at 'Uwēnât, and further in the Western Gilf, it will probably be possible to demonstrate subsequent forms of this style in this area. At present we can only distinguish a few variations, but we do not know how far they are confined to individuals, how far to schools.

We have at site 76 walls with several layers of paintings superimposed on each other (e.g. Pl. XXVII. 1). Small brown human beings in good proportions, very spirited in movement, are the main subject of the earliest layer. Good specimens of these figures occur again at site 72 (Pls. XIX-XXII. 1). At site 76 the uppermost layer depicts cattle in white colour. Between these earliest and latest layers are two or three others. Cattle in white colour, often bigger in size than the average paintings (e.g. Pl. XXIX), occur at several sites overlying earlier paintings. So we conclude that the last painters in these valleys used only white colour and depicted only animals.

Site 75 furnishes again walls with good superimpositions. Here brown cattle are the earliest discernible layer. As a second layer many paintings in white appear including human beings (Pl. XXIV. 1). Cattle, mottled brown and white, and spirited, very slim, human beings in brown colour comprise the uppermost layer (Pls. XXIII, XXIV). A further development here of these spirited brown men are people as thin as thread with beak-like protruding faces. The transition of the slim men to these thread-like abstractions is visible (Pl. XXIV. 2).

The technique of the engravings is hammering out. Only at one place—in the horizontal rocky bed of a torrent—long incised lines occur, in one case forming a schematized giraffe.

About the technique of painting we know nothing. The brown colours used are doubtless ochres which are found in these valleys. The shades of these ochres—as found in lumps here and there, and as they appear in the paintings—vary considerably. Sometimes red, sometimes orange, sometimes violet is predominant. The ochre colours of early paintings appear the darker, the more they were exposed to direct sunlight. The white may have been some other mineral. Pieces of ochre were sometimes found, and a piece of anhydrite gypsum once in a painted shelter. White seems to have been less lasting than the ochre colours. In many paintings of the earlier layers the white colour has disappeared, the brown remained (e.g. Pl. XX. 2). Other colours than ochres and white have not been used.

We do not know how the painters bound their colours. It has been mentioned that occasionally men are depicted with white spots on their bodies (e.g. Pl. XXVI. 1); probably they are painted. If our interpretation is right, these people must have had some experience in colour-binding on a human skin. And this experience they may have applied also to their rock-painting.

I have endeavoured to discover traces of the implements they used for painting. But no brush-marks, or traces of feathers or spatulae, nor hairs, nor any other clue was found. The thinness and elegance of many lines prove that an almost perfect implement was at the disposal of these painters.

To summarize. 'Uwēnât is a pasture oasis. Here there lived through a long period people who were cattle-breeders. They are a branch of our Hamitic Autochthonous Mountain Dwellers, as their cattle-breeding, their dress, a certain kind of game-trap, peculiar head-ornaments of cattle, and their style prove. The elephant does not appear in their art. The giraffe on the contrary is present in their pictures, from the earliest until the latest times. Differences between paintings and engravings point to a segregation of families and bachelors. Women probably had a free and respected position.

E. *Early Oasis Dwellers*

This people and its drawings were the main discovery of last season. Remains of these men have been found on and around small sand-stone hills east of the present Oasis of Dâkhla. All sites are situated in a depression. Apparently there was an oasis here in these days. Pictures of a pregnant woman are characteristic in the drawings of the Oasis Dwellers. These are very numerous. The subject by itself is unique in all the rock-drawings hitherto found.

The authors of the engravings of the pregnant woman did not live alone here. Their drawings are accompanied in many cases by other quite distinct ones which were undoubtedly made by the Earliest Hunters. Intermixtures of types prove that Early Oasis Dwellers and Earliest Hunters lived here contemporaneously, at least for a certain period.

Fauna. The Early Oasis Dwellers represent in their own drawings the giraffe (Pl. L), antelope (Pl. XLII. 1), ibex, ostrich; dog (Pl. L. 1) and cattle. But cattle are rare in their pictures (Pls. XXXIX, XLII. 2).

Dress. In contrast to the costly dress of women we find men quite naked. One man wears a feather vertically on his head, another man or woman is dressed in a short skirt (Pl. XL. 2).

In nearly all cases the women represented are pregnant. They are carefully dressed in long skirts in most cases covering the feet. These skirts sometimes display various patterns. It is apparently woven work (Pls. XXXIX, XL. 1, XLI, XLII. 1, XLV). The upper part of the garment is as a rule neglected. One drawing (Pl. XLII. 1=XLVIII. 20) shows the breasts and the navel uncovered. As a rule the pregnant woman is shown in side view, sometimes in front view. In both views there are pictures displaying a kind of 'divided skirt' (Pls. XLVII. 11-13, XLVIII. 20, 21, 23). These woven skirts are occasionally ornamented by bunches of short strips (Pls. XLI. 2, XLVII. 10, 13). Strings hanging down from the waist are the next peculiarity sometimes to be observed (Pls. XLVII. 4, XLVIII. 24). Necklaces (?) occur but once (Pl. XLV. 1). In a few cases we find crowns in several shapes, one like a high cap (Pl. XL. 1=XLVII. 2, compare 3, and Pl. XLVIII. 20), others of a radiate type (Pl. XXXIX=Pl. XLVII. 1, Pl. XLVIII. 22). Wavy lines occasionally indicate long hair or plaits (Pls. XXXIX, XL. 1=Pl. XLVII. 1 and 2).

Neatly patterned sandals are drawn on horizontal surfaces (e.g. Pl. XLIII. 2).

We learn nothing about the weapons of the authors of these drawings, and nothing about hunting.

Social Life. I have mentioned that the drawings characterized by this pregnant woman are intermingled with those of the Earliest Hunters. Some few drawings of her are certainly made by Earliest Hunters; their coarseness and drawings of the Earliest Hunters associated with them prove this (Pl. LVI). I assume then that two different peoples lived here together. One of them was our Earliest Hunters, the other was very interested in pictures of a finely dressed pregnant woman. These other people knew cattle, but cattle-breeding was not their livelihood. Nor was hunting. So they were in all probability plant-cultivators. Their drawings have been found close together on a spot which may well have been once an oasis. They are not dispersed over vast areas like those of the Earliest Hunters and the cattle-breeding Autochthonous Mountain Dwellers. These people of the pregnant woman were in all probability settled people.

Religion. I have here called and described certain drawings as those of a pregnant woman. About seventy drawings of this type have been found. Indeed, if they were only few in number, we should be uncertain what was the intention of the draughtsmen. The buttocks in side view and the hips in front view are so enormously exaggerated that the pictures scarcely look human at all (Pls. XLVII, XLVIII). The pictures in side view sometimes look like a seated woman rather than a pregnant one. Fortunately there are two drawings showing the feet of this woman (Pl. XLIII. 1=Pl. XLVIII. 27, Pl. XLVII. 9). The direction of the feet makes it clear which is the front and which is the back, and confirms that a pregnant woman with enormous buttocks is the real intention of the artist in all these drawings. In most cases the drawing is schematized, often it looks more like a sign than a picture (Pls. XLII. 1, XLIII. 1, XLVI. 1, XLVII. 11-13, XLVIII. 14-18, 23). The next point to be observed is that the upper part of the body even in the finest drawings is very neglected. In many cases the arms are lacking

altogether (e.g. Pls. XLVII. 6-13, XLVIII. 16-19, 23-5), in other cases they are much too short (e.g. Pls. XLVII. 1, 2, 4, 5, XLVIII. 14, 15, 20). Further, one observes that all these pictures of a woman show a central axis from head to foot. To this central axis are attached the veiled enormous buttocks, the womb, a more or less circular upper body, and a circular head. I conclude that these drawings do not represent real women but statuettes. If we imagine a statuette modelled around a stick out of mud or other plastic material, and then more or less dressed, we can imagine that it would look very much like our rock-drawings. Finally, it must be noted that many of the pictures of the pregnant woman are engraved on horizontal surfaces on the top of hills facing the sky; some are inscribed in shallow cups, scooped out on the top of hills (Pls. XLIII. 2, XLIV).

To sum up. (1) There is a surprising quantity of these unusual pictures in one limited area. (2) Many of them are schematized—they convey an idea rather than an artistic impression. (3) The drawings probably represent not living women but statuettes modelled around a stick out of some plastic material. (4) The pregnancy is important to the author. (5) The statuettes are in nearly all cases carefully veiled. (6) They are sometimes richly adorned. (7) The drawings in many cases face the sky.

It is obvious that we must look for a religious or magical explanation for these curious drawings. We may imagine that people wanting children used to make statuettes of a pregnant woman or pictures of such a statuette. This may be one explanation. The other idea which may underlie these drawings may be that of a deity. The sites are in an oasis. Grindstones were found all around these hills. In one instance three cups are scooped out on a hill. One of them bears the schematized picture of the pregnant woman, in the neighbouring one was found a grindstone *in situ* (Pl. XLIV. 1), suggesting that the authors of the drawing were acquainted with grinding. In another cup the pregnant woman is incised, and partly effaced by grinding (Pl. XLIV. 2), suggesting again that these people knew the art of grinding. We may be on the right track in supposing that this pregnant figure was connected with the fertility of the earth. The position on the top of hills facing the sky may connect these drawings with rain. Did these statuettes and pictures of them represent the fecundated soil thirsty for rain? The careful veiling and the rich ornamentation shown in the drawings point rather to a deity than to a human woman, possibly a goddess of virginal aspect.

The meaning of pairs of drawings of such 'statuettes' facing each other and connected by strokes joining the genital parts (Pl. XLI. 1=Pl. XLVIII. 24, 25) is impossible to explain.

My opinion that the pregnant figure is a deity is confirmed by the finest picture of the series (Pl. XXXIX). She is four times carefully engraved. One of these figures is connected by a horizontal stroke with a bull or cow. This animal wears what is possibly a kind of ornament on its head. A human being, much smaller in size than the pregnant woman, leads it by its tail. The whole picture seems to be a composition, not an accidental juxtaposition. If this is right the scene may mean that the animal is about to be sacrificed to or blessed by the deity. Cattle occur a second time on a wall full of drawings of the pregnant deity (Pl. XLII. 2).

In the scene I have described of the deity, associated with the bull or cow and the man, a pair of rectangles is drawn between the deity and the animal (Pl. XXXIX). A similar pair occurs on the same stone in the left-hand top corner. I cannot explain them. Similar pairs of rectangles occur several times (Pl. XLIX). In one particularly interesting specimen the careful work makes it probable that these rectangles are woven or plaited (Pl. XLIX. 1). From each

bottom corner a pair of strings issues. On the top these rectangles are sometimes connected. I suppose that they belong in some way to the cult of these Early Oasis Dwellers.

The bull or cow just mentioned has possibly an ornament on its head (Pl. XXXIX). Another rough drawing of a similar animal has an accessory pair of horns between its own. These too may be explained as religious or magical.

The style of the Autochthonous Mountain Dwellers at 'Uwēnât I have called the style of balanced exaggeration. There is a certain similarity in style between the 'Uwēnât people and the Early Oasis Dwellers. But here at Dâkhla the exaggerating style is no longer balanced. The buttocks or in front view the hips of women are exaggerated out of all proportion. What at 'Uwēnât produced a striking artistic effect becomes ugly at Dâkhla. But, nevertheless, there must be a common tradition of this style—this style which emphasizes the curves of the human body. The Early Oasis Dwellers lived here together with the Earliest Hunters. It is characteristic of the style of the Earliest Hunters that they exaggerate sometimes in a very unartistic way certain details which they have in their mind. We have in their drawings for instance men with abnormally big hands and long fingers (Pls. LII. 1, LV. 2), giraffes with enormous necks or with a tassel on their tails bigger than the tail or even bigger than the whole animal (Pls. LIII, LIV. 1). Now giraffes with abnormally long tails occur occasionally in drawings of the Early Oasis Dwellers (Pl. L. 1), and wavy lines, a favourite subject of the Earliest Hunters, have been drawn by the Early Oasis Dwellers also (Pl. XLVI. 2). We may imagine that the style of the Early Oasis Dwellers could result, if people with the style of balanced exaggeration met the Earliest Hunters with their style of primitive exaggeration of detail.

The technique of the drawings of the Early Oasis Dwellers is often different from the usual hammering out or incising. In these cases the artists outlined a drawing by incising, and then smoothed the surface circumscribed by the outline. The result is a sunk relief. On this sunken surface they sometimes drew afresh, for instance, the patterns of the skirts, or of the giraffe's skin (e.g. Pls. XXXIX. 1, L. 2). Besides this technique incising is frequent, hammering out rare. I have mentioned that at these sites many cups are scooped out of the rocks by the Early Oasis Dwellers; this and the sunk relief prove that these men were well acquainted with the smoothing of stone.

As to the age of the Early Oasis Dwellers, we learn from the rock-drawings that they were at some time contemporaneous with the Earliest Hunters.

The surface around the sites of the Early Oasis Dwellers was covered with stone implements. Among them the frequent occurrence of Neolithic implements typical of the Faiyûm is noteworthy. Possibly there was an ancient communication from Dâkhla to the Faiyûm along the belt of oases.

To summarize. In the desert east of Dâkhla are traces of early settlements in a depression which at that time was probably an oasis. There are rock-drawings of the well-known Earliest Hunters there, and of another people hitherto unknown. This new people lived in close connexion with the Earliest Hunters. They, like the Earliest Hunters, knew the elephant, but the animal was of hardly any importance. Giraffes were the main game of the hunter. Cattle were known, but occur rarely, and probably in connexion with the cult. These new people were probably settled people and earned their livelihood from plant-cultivation. They used grindstones. The art of weaving was surprisingly developed. Statuettes of a pregnant woman were of high importance to these cultivators; possibly they were connected with the idea of a deity of fertility.

F. Earliest Hunters

The Earliest Hunters have been found widely dispersed in the Western Desert. On the western bank of the Nile and in the Oasis region many drawings give evidence of their existence and information about their life.

Fauna. In the Eastern Desert the elephant was apparently their main big game, in the Western Desert the giraffe. This difference is easily explained. The Eastern Desert was and is still far better watered than the Western one. In those days of greater rainfall the elephant found in the Eastern Desert suitable conditions of life, but not in the Western Desert. This country, on the other hand, was enough watered to provide ideal conditions of life for the giraffe, to judge from the enormous number of drawings of this animal. We find giraffes drawn by the Earliest Hunters in the cliffs so far explored on the western bank of the Nile from Armant up to Aswân (Pls. LI, LII. 1, LIV. 2, LVIII. 1), and further in the Oasis region (Pls. LIII, LIV. 1, LX. 2). The elephant occurs twice between Khârga and Dâkhla (Pls. LVI. 1, LVII. 2). The Earliest Hunters also drew near the river as well as in the oases, antelopes (Pls. LI. 1, LVIII, LIX. 1), ibexes (Pl. LI. 1), gazelles, ostriches, crocodiles (Pl. LVIII. 1), and snakes (Pl. LX. 2). The dog was used for hunting (Pl. LI, 1). Once a man leads one on a leash (Pl. LV. 2).

Dress. Sometimes the penis is drawn between the legs of men (Pls. LI, LIV. 1), and we may therefore conclude that they wore no clothes. A curious figure of a man has some strips near his knees (Pl. LII. 1), which may be an ornament. The same man and others sometimes wear vertical head feathers (Pl. LV. 2), sometimes arrows radiating from their heads (Pls. LIII, 2, LIV. 1). We must conclude that the hair of these people was long enough to hold them.

Weapons and Hunting. Bows were in use. Unfortunately they are indefinite in shape (Pls. LIII. 2, LIV. 1 (?), LV. 2). We learn more about the arrows (Pls. LIII, LIV. 1). The shaft is composed of two parts. The front part bears the broad-tipped arrow-head, the back part the feathering. If we consider that the supposedly flint head had to be attached to the front part by some binding or hafting as the feathers are to the back part, we see that these arrows are surprisingly elaborate, worthy of a hunter people. Beside these arrows we sometimes see men wearing arrows radiating from their heads. Quivers never appear, so we may conclude that they carried the arrows in this way on their expeditions. Possibly the arrows were poisoned. If so, this method of carrying them is quite ingenious. It is difficult to kill big game with arrows. A pointed arrow would do less harm than the broad-tipped one which cuts the sinews and veins. Primitive hunters make much use of poison, and so probably did these Earliest Hunters. Drawings of giraffes with a kind of rope hanging down from the angle of jaw and neck are frequent (Pls. LIII, LIV). The rope often ends in the hand of a man (Pls. LIII. 1, LIV. 1). One picture shows a giraffe hit by four arrows in the groin and by two in the shoulder, while a man holds a rope as I have described (Pl. LIII. 1). Probably the wounded animal was finally caught by a kind of lasso. In some drawings men hold curious things in their hands which may well be lassoes coiled in the right way for throwing (Pl. LI. 1). Another lasso in the hand of a man shows possibly the moment of its uncoiling as it is thrown (Pl. LI. 2). Maces with heavy circular heads were probably a further weapon for giraffe hunting. Inexplicable objects represented in some drawings may be hunting implements (Pls. LI, LII. 1, LXI. 2). Occasionally footprints of animals are hammered out.

Social Life. The most interesting fact seems to me the symbiosis of the Earliest Hunters

and Early Oasis Dwellers at Dâkhla. Two peoples met here, different in their art, different in their manner of life, different in their ideas. No fighting-scenes are found. On the contrary, peculiarities of style typical of the Earliest Hunters occur in drawings of the Early Oasis Dwellers, and on the other hand the peculiar technique of smoothing of the Early Oasis Dwellers is sometimes used by the Earliest Hunters. And, more important, the pregnant deity occurs occasionally connected with drawings of the Earliest Hunters and done by them (Pl. LVI). It proves that here in the oasis they too were interested in this deity of their friends or brothers-in-law, the Early Oasis Dwellers.

Religion. This local reverence of the Earliest Hunters for a foreign deity is remarkable. Elsewhere we find their religion as we already know it from the previous season's discoveries. Many drawings of game, of hunting, of animals' footprints probably convey magic ideas. Spirals and wavy lines (Pls. LVIII, LIX, LX. 1, LXI. 1), and other geometrical designs are probably connected with their magic. Some of them may represent entrails. These designs are very frequent and manifold. Unfortunately we do not understand them. Once a group of eight men surround another of bigger size. The central figure wears a kind of animal's mask (Pl. LV. 1). The scene may represent some magic dance.

The style of the Earliest Hunters is as a rule coarse. One peculiarity formerly observed I have mentioned in this report: the exaggeration of detail. Things which for some reason prevail in the mind of the artist he draws abnormally large, showing the importance by this exaggeration. Tails of animals, particularly the tassels of giraffes' tails, he draws in this way (Pls. LI. 2, LIII. 2, LIV. 1). Possibly they were valuable for amulets or ornaments or some other purpose. Hands of men are exaggerated (Pls. LII. 1, LIV. 1, LV. 2). Once a kind of hand comes out of a curvilinear maze (Pl. LII. 2). Another man has ears as big as trumpets, perhaps conveying the idea of good hearing (Pl. LIV. 1; compare *RSUE* I, Pl. XXVIII. 1). A further peculiarity is perhaps not so much a peculiarity of style as of magical belief: the legs of animals or men are sometimes drawn with the feet joined together (Pls. LI. 2, LII. 1).

The technique is as a rule hammering out, but incision sometimes occurs in the same picture: animals with hammered-out bodies and incised legs and horns have been observed already (see *RSUE* I, p. 32). In the oasis area some drawings of the Earliest Hunters show the same sunken smoothed surface as the drawings of the Early Oasis Dwellers, and no doubt this is due to the latter's influence (e.g. Pls. LIII, LIV. 1, LVI).

To summarize. The Earliest Hunters have been found widely dispersed from the Nile valley up to Dâkhla Oasis. They used elaborate arrows, lassoes, and maces for giraffe-hunting. Curvilinear and other geometrical compositions are frequent in their art, and probably convey religious ideas. Most important of all is their union with the Early Oasis Dwellers at Dâkhla. There an exchange took place of two different civilizations.

CHRONOLOGICAL SEQUENCES

The report of the season of 1936-7 led to the following conclusion. Four early groups of pictures were discernible, each one distinguished by the culture associated with it, and by the style. The earliest of these civilizations was that of the Earliest Hunters. After them, and apparently unconnected with them lived the Autochthonous Mountain Dwellers. Contemporaneous with these at an already early date lived the Eastern Invaders. Contemporaneous with both

these but only at a later period lived the Early Nile-valley Dwellers. Among these four civilizations we could date that of the Early Nile-valley Dwellers as contemporaneous with the time of the second Naqâda (Gerzean) civilization and the early dynastic time.

During the season of 1937-8 many new pictures of the Earliest Hunters have been collected, a few of the Eastern Invaders and Early Nile-valley Dwellers. The group of the Autochthonous Mountain Dwellers was scantily represented near the river and in the Oasis region, but at 'Uwênât a branch of this people was studied. The considerable body of those paintings and engravings displayed many peculiarities. This group has therefore been classified as a civilization by itself: the Uwenat Cattle Breeders. Finally, in the Oasis area, a new civilization was found: the Early Oasis Dwellers.

Superimpositions occur many times. But a dynastic or Arab drawing superimposed upon a predynastic one or a dynastic drawing overlying another dynastic one or an Arab picture on top of another Arab picture, are all quite valueless. Indeed, only very few superimpositions help for dating. They are a new proof that the Earliest Hunters are earlier than all the other draughtsmen. At site 36 (M 478 bis) a gerenuk-gazelle of the Autochthonous Mountain Dwellers overlies a giraffe of the Earliest Hunters. At site 51 (M 611. 613. 614) drawings of the Eastern Invaders overlie drawings of the Earliest Hunters. At site 60 (M 694) a drawing of the Autochthonous Mountain Dwellers superimposes another one, made by the Earliest Hunters. It is everywhere the same: the drawings of the Earliest Hunters are beneath all the others; they are the earliest.

We have hitherto had no idea how far back in time to place the Earliest Hunters. Last season produced a drawing which gives us a hint of their age. Between Khârga and Dâkhla, at a site of the Earliest Hunters, a curious elephant-drawing has been found (Pl. LVII. 2). This elephant is incised, the body is ornamented by a zigzag, one ear of the animal is raised, one is dropped. Many drawings of elephants have been collected from the rocks. The zigzag elephant is quite unusual. These zigzags are probably an ornament developed out of the folds which the thick skin forms above the legs. At another site of the Earliest Hunters, between Armant and Nag' al-Ḥamâdi, the same peculiar conception of an elephant has been found. There an elephant-cow and her calf behind her is neatly incised (Pl. LVII. 1). The elephant cow has the zigzag across her body; one ear is raised, the other dropped. The calf has not the zigzag ornament, probably because its skin has not yet the characteristic creases. The work is so cleverly done that I hesitated to ascribe it to the Earliest Hunters, who are distinguished by their unartistic coarseness. But another, coarse, elephant close by shows the same position of the ears, thereby connecting these fine elephants with the coarse drawings of this site, made by the Earliest Hunters. At the site between Khârga and Dâkhla and here these zigzag elephants are not found in the easiest places. They are beside the main walls; at the Oasis site the zigzag elephant is even hidden in an uncomfortable narrow cleft. As a rule we observed that those places which are the nearest at hand are the first to be inscribed by the artists. The later comer either superimposes his drawing upon the earlier ones in the easy places or he draws beside them in the corners and other less accessible places. In the present cases this juxtaposition would mean that the style of the fine zigzag-elephants appeared somewhat late in the period of the Earliest Hunters. The elephant with the zigzag on its body and the peculiar position of the ears is datable. We know it from pots and palettes of the Amratian period. We may therefore conclude that the Earliest Hunters lived before and at the time of the Amratians.

The dating of the Earliest Hunters dates also the Early Oasis Dwellers. These people lived in the Oasis region with the Earliest Hunters. I had the impression that the drawings of the Earliest Hunters in the Oasis region were not among the earliest which this people produced elsewhere. Patination seems to tell the same story. The observations about patination given in my previous report must be supplemented by one more. In the Oasis area nearly all rock-drawings are exposed to sand drift. Now, if the protecting film of the rocks had once been pierced by the draughtsman, the development of new patina is very slow because the sand drift permanently affects the soft denuded stone. Therefore an old drawing sometimes looks fairly fresh; the more it has been exposed to the sand, the fresher. If anything, I am inclined to ascribe the drawings of the Earliest Hunters in the Oasis area and those of the connected Early Oasis Dwellers to a late period in the long history of the Earliest Hunters.

In the paper *Early Ethnology of the Libyan Desert, &c.*, I have further tried to date the Uwenat Cattle Breeders. I will here recapitulate the main facts.

The shield of one man at 'Uwēnât seems to be made of a leopard skin (Pl. XXXIV. 1). It resembles a shield of leopard skin in the hand of a fighter in the Hierakonpolis wall-painting. In 'Uwēnât we found a circular ornament on the head of a bull (Pl. XXXVII. 1). Similar circles on the heads of cattle are known among the Autochthonous Mountain Dwellers in the Eastern Desert and as a mark on predynastic pottery in the Nile valley. In 'Uwēnât cattle with accessory 'horns' were depicted (Pls. XXXVI. 1, XXXVII. 2). The same feature occurs once in a drawing of the Early Oasis Dwellers, who can be linked by the Earliest Hunters with Amratian times. The style of balanced exaggeration appears at its best at 'Uwēnât in the earliest paintings. The same style appears in the earliest drawings of the Autochthonous Mountain Dwellers outside 'Uwēnât, going back probably to a time far earlier than the second Naqâda (Gerzean) civilization. These observations suggest that the period of the Uwenat Cattle Breeders begins in predynastic times. The faded appearance of many of the earliest paintings, and the freshness of the latest, and the many grades of patination in the engravings prove that the occupation of 'Uwēnât lasted for a very long period. We may assume that in this pasture-oasis the cattle-breeders lived from predynastic until far into historic times. Presumably the decreasing rainfall induced them to leave the country. But when the desiccation of this region took place we do not know.

RESULTS AND PROBLEMS

THE area explored in the season of 1937-8 has a maximum length of about 900 km.; that is an incomparably wider area than that surveyed in the season of 1936-7 in the Eastern Desert. In the Eastern Desert the walls are full of rock-drawings; generation after generation, people after people lived here or travelled here, and each one of these left its pictures in the wadis. In the Western Desert one may cover hundreds and hundreds of miles without finding a single drawing. The Western Desert has been for a very long time a great sheet of pale parched land with here and there green spots—the oases. Some of them have already been eaten by the drab desert, some still survive. The Eastern Desert is a narrow strip of land, full of black and green and blue and red mountains. Peaks still gather the clouds, and the rain pours from time to time its blessing into the wadis. It is true, the intervals between the rains have become too long; giraffe and antelope have left the valleys, and man can no longer breed his cattle there. But still, it may be called a country of life, this country connected on one side with that great oasis, the Nile valley, and on the other side with that bridge to foreign lands, the sea.

It is a consequence of the landscape of the Western Desert that we find our traces of human life there in isolated groups: near the Nile valley, in the area of artesian wells around Khârga and Dâkhla, and in the rain or pasture oasis of the 'Uwēnât massif. There man has left us his precious remains, his pictures, telling us how he lived and how he dressed, how he fought and whom he adored. His earliest pictures come down to us from a time when the giraffe was still man's companion in the green spots of the yellow desert, and the most recent were inscribed when Australian soldiers hunted the Senussi by car.

We started our investigation with the remains of Arab times, and step by step have reached the days of the Earliest Hunters. Now we will hasten back through the millennia, and see what we have learnt.

Earliest Hunters were found on the west bank of the Nile and again in the Oasis area. Our observations made in the season of 1936-7 have all been confirmed: they are the earliest of all draughtsmen, they are hunters, they never occur with cattle. We found a type of picture which gave us a hint of their date. In a late phase of their existence—as far as illustrated by pictures in the desert—they incised elephants in the manner of the Amratians. The season of 1936-7 produced—merely by the comparison of boat-drawings—the dating of one group of rock-drawings, the Early Nile-valley Dwellers, as contemporary with the second Naqâda (Gerzean) and the early dynastic period. So we now have at our disposal a frame for all the predynastic rock-drawings hitherto found: the earliest group, the Earliest Hunters, are Amratian and earlier; Early Nile-valley Dwellers—they were the latest predynastic group—are Gerzean and later. In my conclusion to the first report I raised the question whether the Earliest Hunters may have gone. Last season's researches suggest that they lived until the time of the Amratians, and we may suppose that at least a part of these roaming hunters may have continued in the Amratians themselves.

Near Dâkhla the Earliest Hunters appear at the side of another people, hitherto unknown. the Early Oasis Dwellers. These were plant cultivators. A hunting people joins a cultivating people. Probably the hunter shared the porridge of the Oasis man, and the Oasis man got his

giraffe joint when the hunter came back from a lucky expedition. The puzzle is to understand how the idea of cultivating arose here. Influence from outside the Oasis? From where? And if there is no foreign influence, the case is even more enigmatic. I have wondered, if possibly the women of the Earliest Hunters could have discovered by themselves the art of growing plants near some artesian well. If this were so, what I have called Early Oasis Dwellers would be no other than the women of the Earliest Hunters. But this is impossible. They are a distinctly different people. The Early Oasis Dwellers knew cattle, which never occur in the drawings of the Earliest Hunters. Their technique of stone engraving is a very different one. As a whole they represent a much higher degree of civilization than the Earliest Hunters. The style of the Early Oasis Dwellers proves acquaintance with the style of balanced exaggeration, known from the Autochthonous Mountain Dwellers. So these Early Oasis Dwellers were certainly not an offshoot of the Earliest Hunters. They were somehow related to the Autochthonous Mountain Dwellers. But again, the unimportance of cattle in their economics, their plant cultivation, their interest in the pregnant goddess, and their technique are foreign to the Autochthonous Mountain Dwellers. So we see that a third ethnic element must be at the base of the Early Oasis Dwellers. This foreign third people knew how to cultivate plants, smoothe stone, weave quite well, and venerated the pregnant deity. When I first saw the drawings of the pregnant woman at Dâkhla, both Cretan and Western Asiatic pictures came to my mind. But all we can say at present is that this group is foreign to the other groups hitherto found in the deserts, and that it reveals traces of a connexion with Autochthonous Mountain Dwellers, and appears in an actual symbiosis with the Earliest Hunters. Excavations around the sites of the Early Oasis Dwellers may throw more light on the question, and I should personally not be surprised if relations with the Mediterranean were not thereby established. The further question of far-reaching importance would then be: did the influence come from the Mediterranean to the Sahara, or from the Sahara to the Mediterranean?

This very same question would then involve the history of the Uwenat Cattle Breeders. They are a branch of the Autochthonous Mountain Dwellers. These are, as I believe, the forefathers and relatives of those peoples whom we know in historic times as speaking Hamitic languages, as I have expounded in the first report. When they first become manifest in their rock-pictures these Autochthonous Mountain Dwellers probably roamed over the vast space between the Red Sea and the Inner Sahara. But with the increasing desiccation groups of this people became more and more isolated in pasture oases. One of these is 'Uwēnât. Here the people lived through a long period from predynastic until deep into historic times, apparently undisturbed by any foreigners. From the very beginning they own cattle. In the Eastern Desert we found drawings of cattle hunts. If wild cattle are really hunted there, not only cattle which returned to the wild state, this would mean that cattle entered the area of the Autochthonous Mountain Dwellers from the eastern side. There they were caught and tamed. However this may have been, in 'Uwēnât only tame cattle are represented. As a rule the mottling of these cattle is drawn with much care. Now, mottling is a result of domestication. Probably nobody knows how long a time it takes for a domesticated animal to change its plain wild coat for a mottled one. But I imagine that it takes a long time. Already in the earliest paintings of 'Uwēnât the cattle are beautifully mottled. We must conclude that these painters or their forerunners had been cattle-breeders for many generations.

The most striking feature in the material collected at 'Uwēnât is the beauty of the pictures,

characterized by a clearly determined style. Where was this style of balanced exaggeration first discovered, and by what kind of men? We find it in Eastern Spain, in Crete, in Greece, in various early statues in Egypt, and again in East and South Africa. Here in 'Uwēnât we have one of the richest provinces of it. Did this style come from the Mediterranean to Africa, or from Africa to the Mediterranean?

The problem of the origin of the Uwenat Cattle Breeders is identical with that of the Autochthonous Mountain Dwellers. We do not know the answer. On the other hand, we may confidently guess whither the 'Uwēnât people went. The scarcity of rainfall pushed them out of their home at 'Uwēnât. East, north, and west, all is sand and barren stone, so they must have gone to the south—on the trail of the giraffe—and they certainly survive in some tribes of the Sudan.

The Eastern Invaders—one of the main elements in the population of the Eastern Desert in predynastic times—are found in the Western Desert only in the cliffs near the Nile. This is exactly what we should expect; after they had reached the rich Nile valley there was no reason to go farther west into the poor desert.

The Early Nile-valley Dwellers, too, were in the wadis of the Western Desert close to the river. They started from the Nile valley and returned to it. They were not adventurous hunters or nomads or sailors with the vast horizon of a continent or an ocean. They were a static, settled people, and the Nile was the axis of their world.

The dynastic period is illuminated by pictures and inscriptions. Again the sites are situated near the Nile, with one exception. East of the present oasis of Dâkhla a hill with drawings of dynastic style and a hieroglyphic inscription has been found: site 68.

In the Graeco-Roman-Coptic period the negative evidence is interesting. In the Eastern Desert are inscriptions of travellers, soldiers, miners, and caravan guides; in the Western Desert hardly anything. But near the towns of the Nile valley and of Khârga Oasis we find in the cliffs the inscriptions of monks.

The Arabs, finally, fill the vast Western Desert with life again. Their whole story is told by their pictures: the transport of their camels by boat, the crocodile adventures, their slave-trade, their fights, and their far from Platonic loves.

The aim of archaeological research is not achieved merely by collecting material and describing it. What urges us human beings to research work of any kind is the longing to widen our horizon, to conquer bit after bit of the unknown, to find the truth. The more we search, the more majestic the cosmos appears. The astronomer reveals to us the solemn glory of the starry sky, the biologist leads us to the secret depth of the origin of life. We deal with man. The subject may appear a mean one beside the vastness and grandeur of the sky or the miracle of life. Or it may appear as the noblest subject, if one thinks that the stars came into being for the sole purpose that somewhere life might originate, and that life originated for the sole purpose that man might arise. And that man has arisen only that some may be born who may search and find the way to the Creator, and that these may bring back to the Creator man and life and star.

With this belief in man's destination we may look at our material from the desert, a material beginning with hunters with an early mentality which is to us almost incomprehensible, and ending with our day of railways and guns. The main acquisitions not only of these desert peoples but of humanity have appeared beneath our eyes: the domestication of cattle, the discovery of plant cultivation, and the taming of horses and camels.

One may write a history of humanity principally guided by two questions: What kind of man was the conqueror of man's environment, and How did the conquered environment react, and change man?

Some thinker must have discovered the causal nexus of the seed and the growing plant. He, or more probably she, broke thereby the eternal flow of palaeolithic times and started the explosion of a new era in humanity's life. The plant reacted, and tied man to the soil, as the plant is tied, made him build, as the plant builds, and made him ponder upon the miracle of the growing plant.

A human being with a strong hand and a kind heart it was who made friendship with the cow and persuaded her to give him her milk. The cow reacted on him, obliged him to migrate with the herd from pasture ground to pasture ground, tamed his mind with its milk, and made him an artist.

Only a bold man could have had the idea and the will to jump on the back of a horse. His heart must have surged with kingly joy when he had the animal gripped between his knees and raced off on the first gallop. And then the horse reacted on its master, it forced him to live where it found its meadows. And it educated him to make himself a master over others. It imparted to him its passion—speed and a vast horizon. And people who tamed horses overran and conquered continents.

In our rock-drawings we have found these three kinds of conquerors more or less distinct. The plant-cultivator at Dâkhla was probably handicapped by his religious ideas, which grew too large. The cattle-breeder in 'Uwênât deteriorates in his art in the long time of his isolation. The Arab horse- and camel-breeder exhausts himself in restless raids. This sharpens our insight.

We see that the great civilizations of the world are not based on one of these three conquerors, but that the union of the plant-cultivator and the cattle-breeder was everywhere a powerful impetus to a permanent civilization. And we see further that the third conqueror, the rider, brings into these static earlier civilizations the strongest vein of life and movement; he makes history, destroying kingdoms and creating empires.

INDEX

Almásy, L. E. de, 2.

ANIMALS:

Antelope, 5, 6, 7, 8, 9, 10, 11, 16, 18, 20, 28, 31.
 Ass, 5, 6, 7, 8, 10, 18, 20, 22.
 Barbary Sheep, 9, 10, 17, 20, 22.
 Bird, 5, 6, 8, 10, 16, 20.
 Camel, 9, 10, 13, 14, 20.
 — bearing the *hōdag*, 14.
 Cattle, 5, 6, 8, 9, 10, 11, 14, 16, 20, 22, 26, 28, 29 sq.
 — with amulets, 9, 10, 22, 25.
 — with necklaces, 11, 22.
 — with ornamentation of the horns 9, 10, 11, 22, 25.
 — bearing burden, 14.
 — copulating, 10, 22.
 — feeding out of a manger, 10, 22.
 Crocodile, 6, 7, 8, 9, 14, 16, 31.
 — attacking human being, 6, 16.
 — swallowing human being, 9, 14.
 Dog, 5, 6, 7, 8, 9, 10, 11, 13, 14, 16, 18, 20, 22, 28, 31.
 Dragon, 7, 15.
 Elephant, 7, 8, 31, 33.
 Fish, 5, 6, 15, 16.
 Gazelle, 5, 6, 7, 8, 15, 16, 20, 31.
 Gerenuk, 5, 19, 20.
 Giraffe, 5, 6, 7, 8, 9, 10, 11, 18, 20, 23, 28, 30, 31.
 Goat, 7, 8, 13.
 Goose, 6.
 Hare, 8, 16.
 Heron, 5.
 Hippopotamus, 6, 16.
 Horse, 6, 9, 14.
 Ibex, 5, 6, 7, 8, 9, 10, 14, 18, 20, 28, 31.
 Leopard, 5, 16, 17.
 Lion, 5, 6, 16, 20.
 Ostrich, 5, 6, 7, 8, 9, 10, 11, 14, 18, 20, 23, 28, 31.
 Partridge, 8, 16.
 Peacock, 6, 15.
 Raven, 6.
 Snake, 7, 8, 31.
 Wolf, 6.

Animals' footprint, 7, 31.

Bagnold, R. A., 2.

Ball, J., 1.

Bedouin from the East, and bedouin from the West, 14.

Bermann, R. A., 2.

Boats, 5, 6, 8, 9, 14, 16, 17, 18.

Bock, W. de, 1.

Bovier-Lapierre, P., 1.

Breuil, H., 2.

Caporiacco, L. di, 2.

Chester, G. E., 1.

Cross, 5, 6, 8, 13.

Cup-marks, 6, 8, 10, 11, 29.

Faiyûm, 30.

Frobenius, L., 2.

Gaming-board, 5, 9.

Geology of the Western Desert, 1, 4.

ghabra, ed-darb el-ghubâri, 4.

Graziosi, P., 2.

Grindstone, 29.

Hassanein Bey, A. M., 2.

ḥaṭṭya, 4.

Hexagram, 7, 8, 13.

HUMAN BEINGS:

Child, 10.

— playing with an ostrich, 23, 26.

Human beings wearing animals' hides, 9, 21.

Human copulation, 14.

— face, 6.

— feet, 5, 8, 9, 13, 14.

— hand, 9.

— profile, 6.

— vulva, 8, 9, 13, 16.

Men, dancing, 8, 9, 32.

— ithyphallic, 6, 17, 23, 25.

— on camel-back, 9.

— on horse-back, 6, 9, 15.

— on ox-back, 14.

— on throne, 5.

— running, 11, 23, 25.

— standing on cattle, 22.

Men's dress, animal's mask, 5, 32.

— animal's tail, 21.

— anklet, 9, 11, 21.

— apron, 16.

— armlet, 10, 11, 21.

— beard, 16, 20.

— bracelet, 9, 21.

— breast ornament, 11, 21.

— 'feather-balls', 21.

— feathers, 6, 8, 10, 11, 14, 18, 21, 28, 31.

— fringes below the knees, 11, 21.

— hair: 'bobbed', 21; Libyan lock, 6, 19; two short locks or plaits, 20; radiating, 16; arrows in the hair, 7, 31.

— kilt, 16.

— Libyan sheath, 9, 10, 11, 16, 18, 21.

— painted legs, 21.

— sandals, 6, 7, 8, 9, 10, 11, 13, 14, 15, 18, 21, 28.

— shirt with trimmings, 15.

— spurs of horseman, 14.

— strings, 10, 11, 14, 21.

Slaves, fettered, 9, 14.

Women, 7, 10, 11.

— naked, 8, 9, 14.

— pregnant, 7, 8, 27, 28 sq., 32.

Women's dress, crown, 28.

— ear-rings, 14.

— feathers or horns, 21.

— long hair or plaits, 28.

HUMAN BEINGS: (*cont.*)

- Women's dress, necklaces, 28.
- skirts, 9, 21, 25, 28.
- strings, 28.
- tattoo, 16.

Hut, 10, 11, 23.

INSCRIPTIONS:

- Arabic, 7, 8, 9, 12.
- Coptic, 5, 6, 7, 8, 9, 12.
- Greek, 6, 8, 12.
- Hieratic, 5, 6, 12.
- Hieroglyphic, 5, 6, 8, 12.
- Libyan, 8, 12.
- in unknown characters, 6, 12.

Kemal el-Dine, Prince, 2.

King, W. J. Harding, 1.

Male figures deliberately damaged, 24 sq.

Masons' marks, 5, 6, 13.

Milking from behind, 22.

Mine-workings, 1.

Newbold, D., 23.

Paintings and engravings compared, 24.

Pairs of rectangles, 8, 29 sq.

Palm-branch, 8, 9, 15.

Pasture oasis, 19.

Patination, 34.

Penderel, H. W. G. J., 2.

Pentagram, 6, 8, 13.

Railway train, 9, 14.

Reygasse, M., 23.

Schweinfurth, G., 1.

Shaw, W. B. Kennedy, 2.

Spirals, wavy lines, and other geometrical designs, 5, 6, 7, 8, 30, 32.

Standard, 14.

Stool, 11, 23.

Style of rock-pictures, 15, 16, 18, 20, 26 sq., 30, 32.

Superimposition, 16, 20, 26 sq., 33.

Technique of rock-pictures, 15, 17, 18, 27, 30, 32.

Tent, 9, 14.

Tobacco-pipe, 14.

Tombs, 5, 6.

Traps, 9, 10, 17, 22.

Tree, 5.

Tribal marks (*wusûm*), 7, 8, 9, 10, 12 sq., 14.

Uraeus, 16.

Water-hole, 10.

WEAPONS:

Arrow, 7, 8, 11, 16, 22, 31.

Axe, 21.

Bow, 5, 6, 7, 8, 9, 10, 11, 16, 19, 21 sq., 25, 31.

Club, 8, 9, 10, 16, 21.

Gun, 9, 14.

Lance, 9, 14.

Lasso, 6, 31.

Mace, 8, 31.

Pistol, 9, 14.

Quiver, 10, 22.

Scimitar, 14.

Shield, 6, 9, 10, 11, 14, 15, 22, 23.

Sticks, straight and curved, 5, 6, 8, 9, 10, 11, 16, 21, 23.

Sword, 6, 9, 14, 15.

Throwing-iron, 9, 14.

Throwing-stick, 6, 18.

Whip, 9, 22.

Whetting-marks, 8, 10.

Winkler, H. A., 2.

Winlock, H. E., 1.

PLATES



1 |—————| 10 cm. See p. 14.

69. M 906



2 |—————| 10 cm. See p. 14.

69. M 888



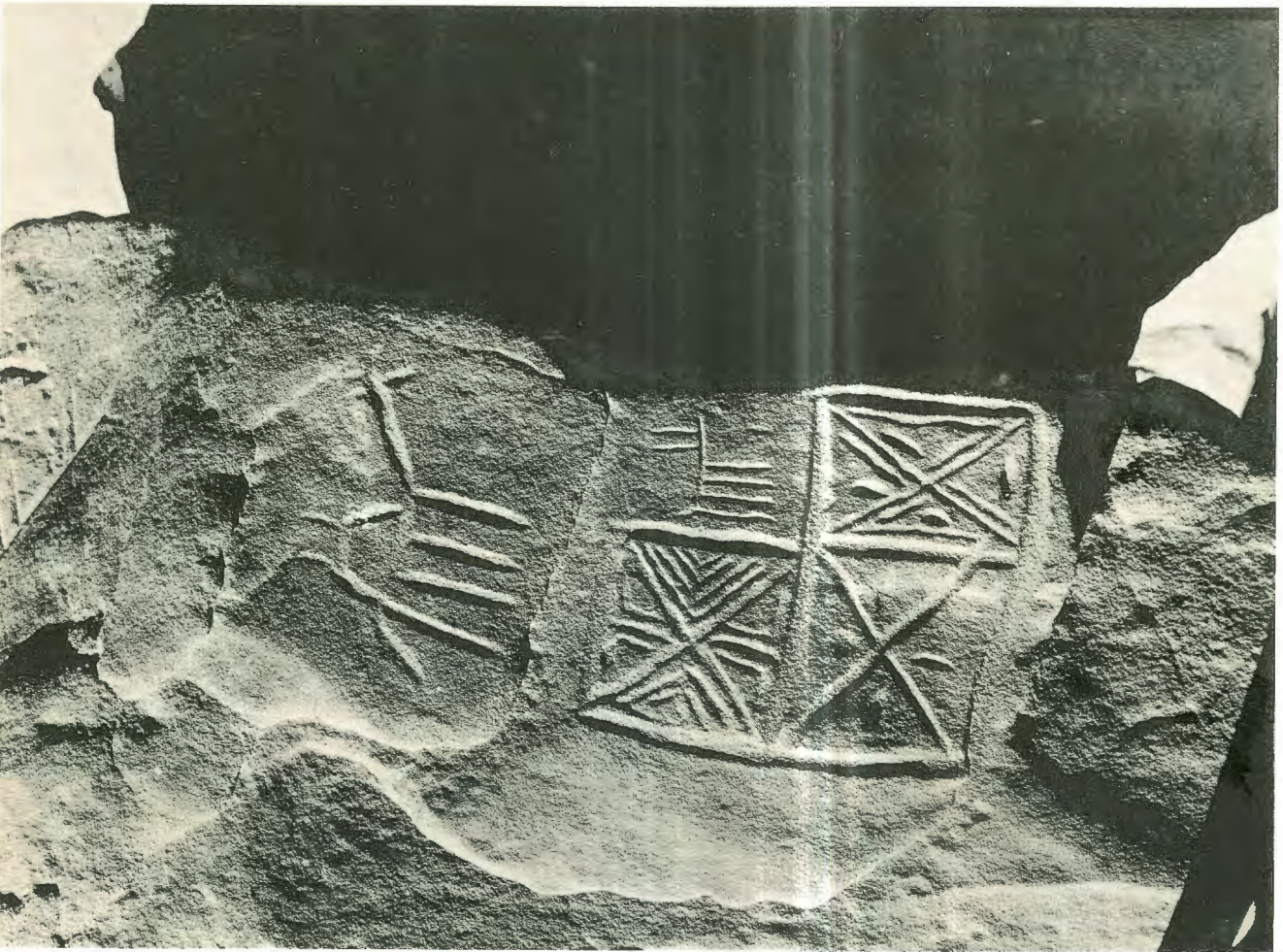


69. M 910a

See p. 14.

10 cm.

2



69. M 914

See p. 14.

10 cm.

1





1 |—————| 10 cm. See p. 14.

69. M 908



2 |—————| 10 cm. See p. 14.

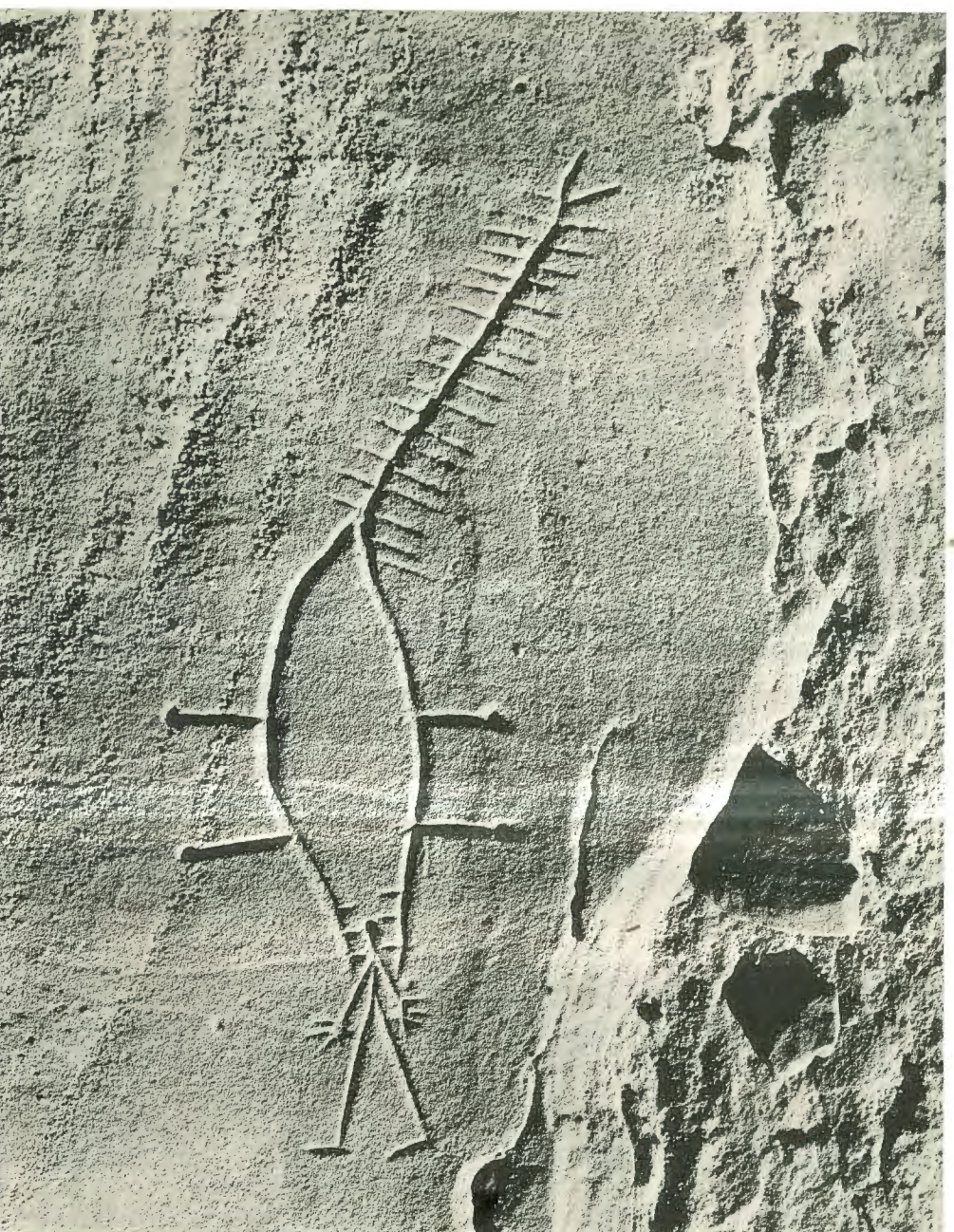
69. M 896





1 ————— 10 cm. See p. 14.

69. M 903



2 ————— 10 cm. See p. 14.

69. M 905



1 |—————| 10 cm. See p. 14.

69. M 913



2 |—————| 10 cm. See p. 14.

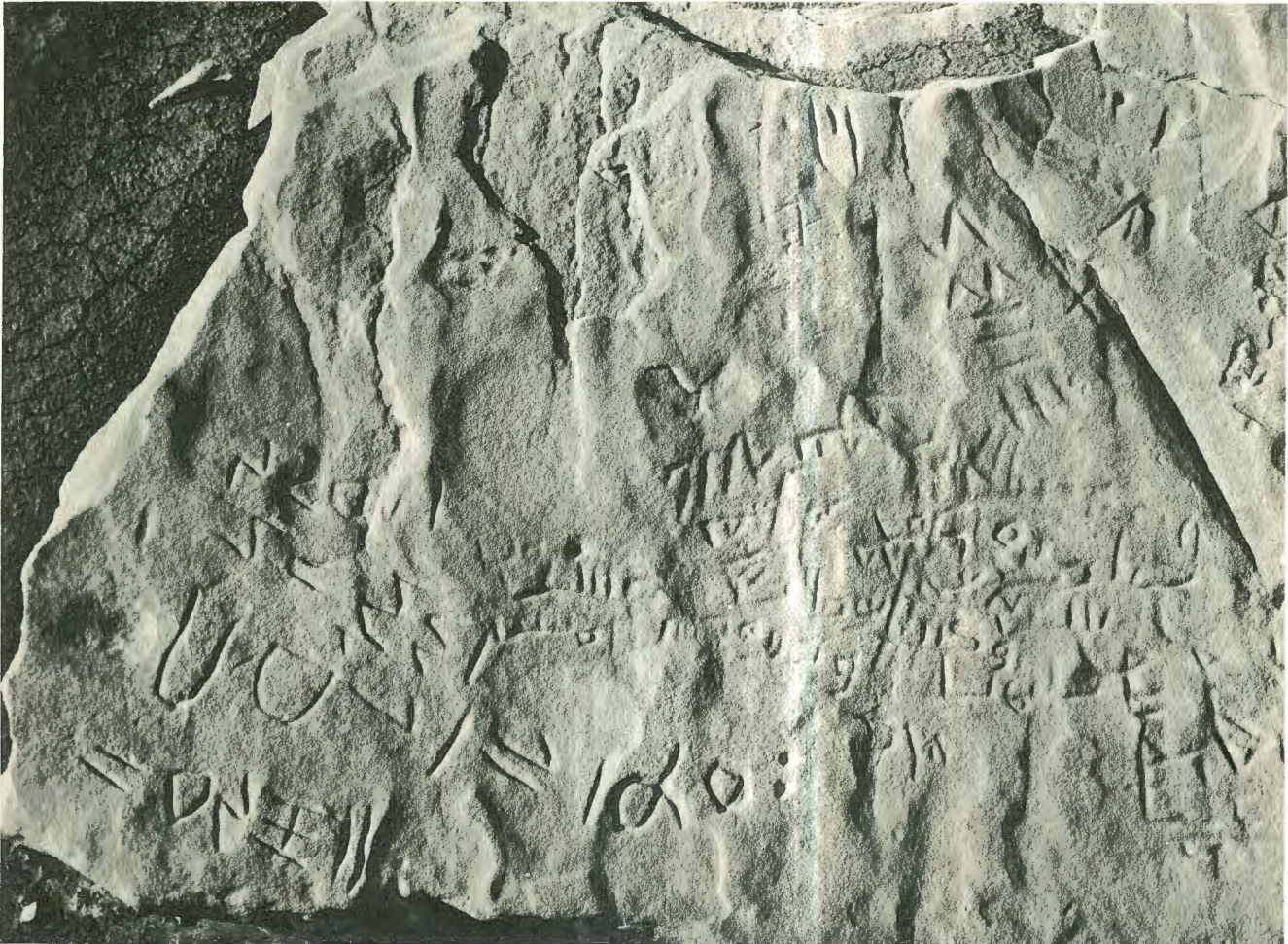
69. M 904





1 |—————| 10 cm. See p. 14.

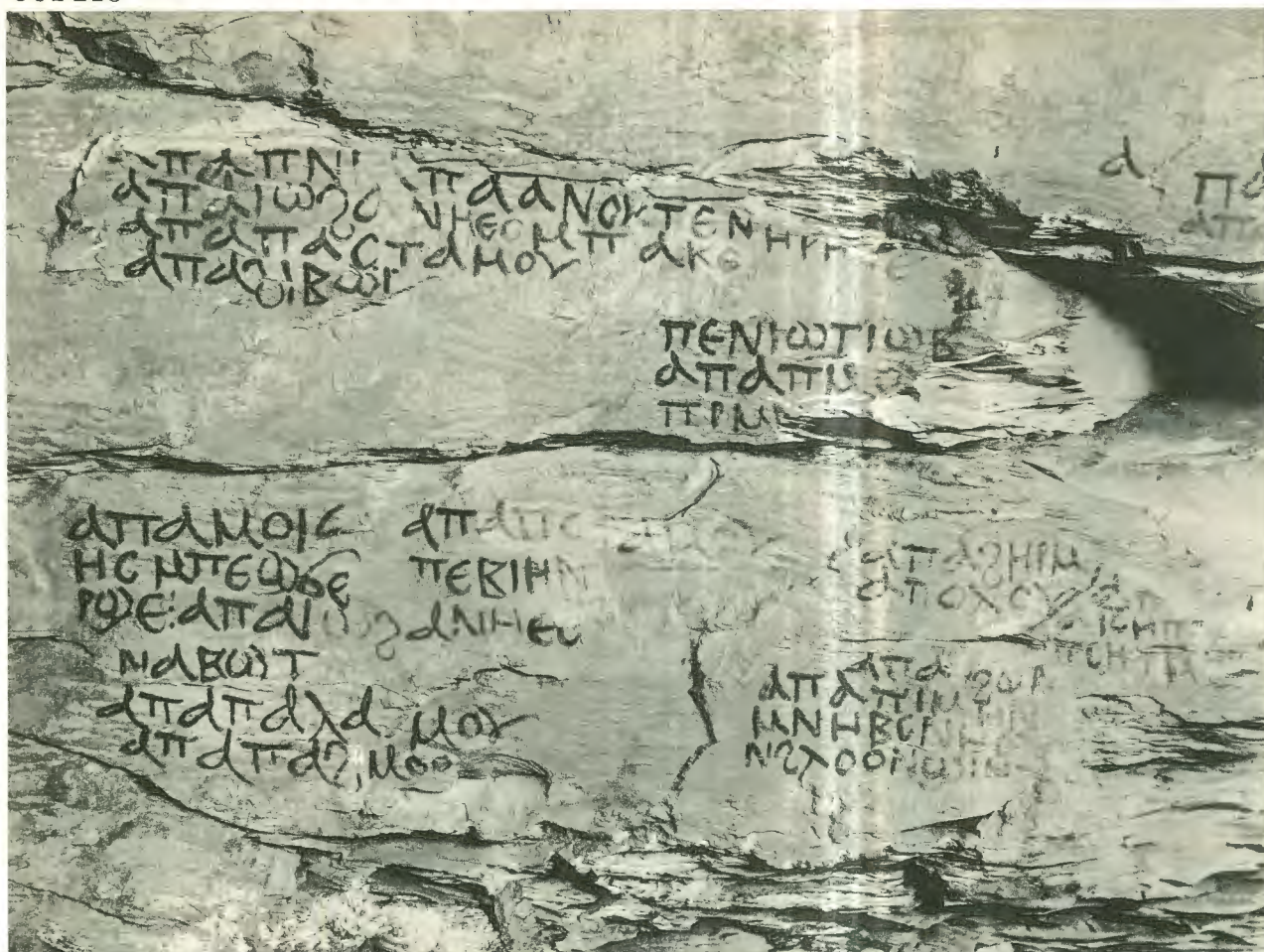
69. M 911



2 |—————| 10 cm. See p. 12.

63. M 706





1 |—————| 10 cm. See p. 12.

44. M 533



2 |—————| 10 cm. See p. 15.

35. M 475 bis 18



1 |—————| 10 cm. See pp. 12, 13.

68. M 863a



2 |—————| 10 cm. See p. 12.

48. M 584a



1 See p. 12. 36. M 477a
10 cm.

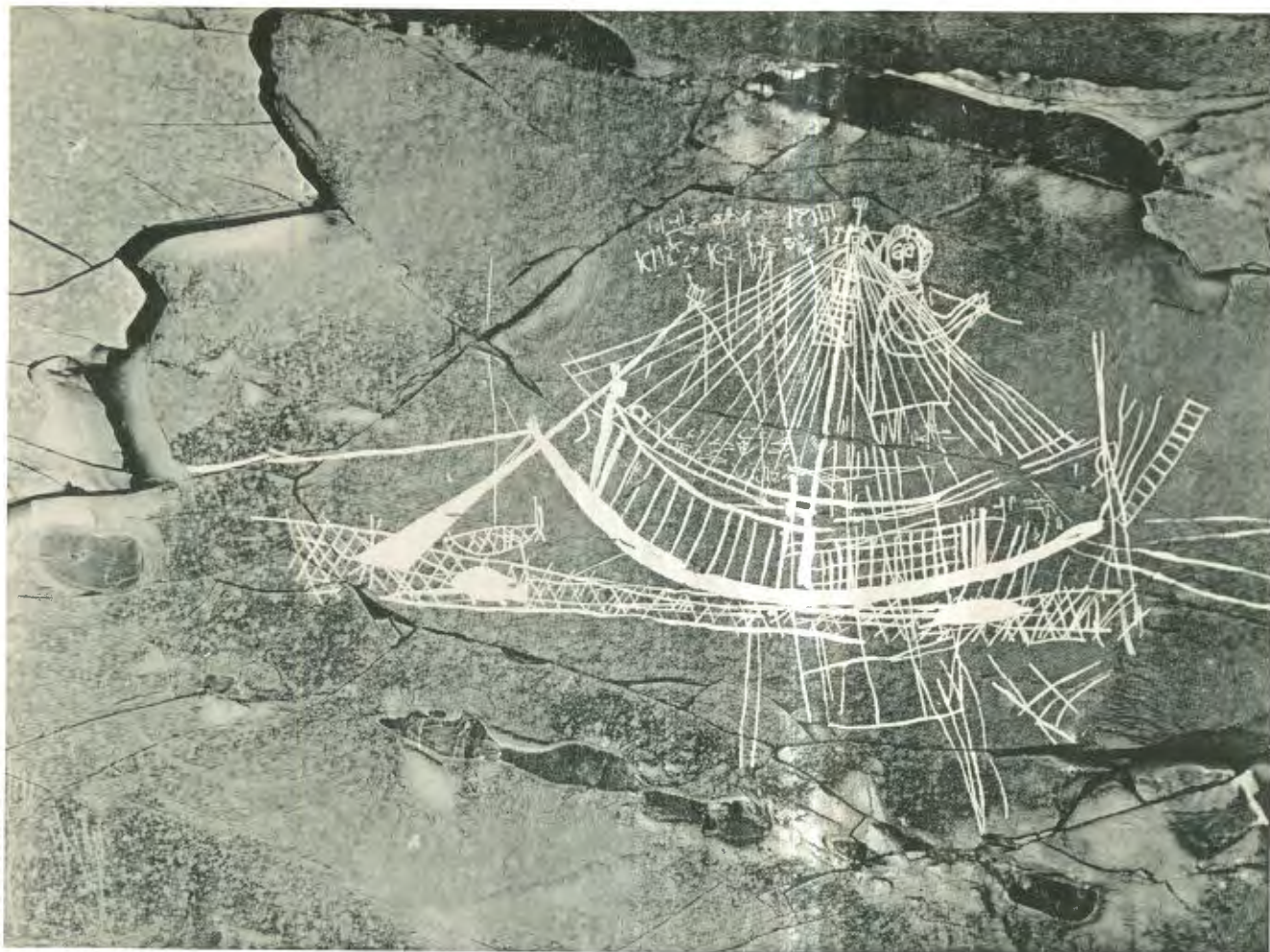


2 See p. 13. 68. M 850
10 cm.



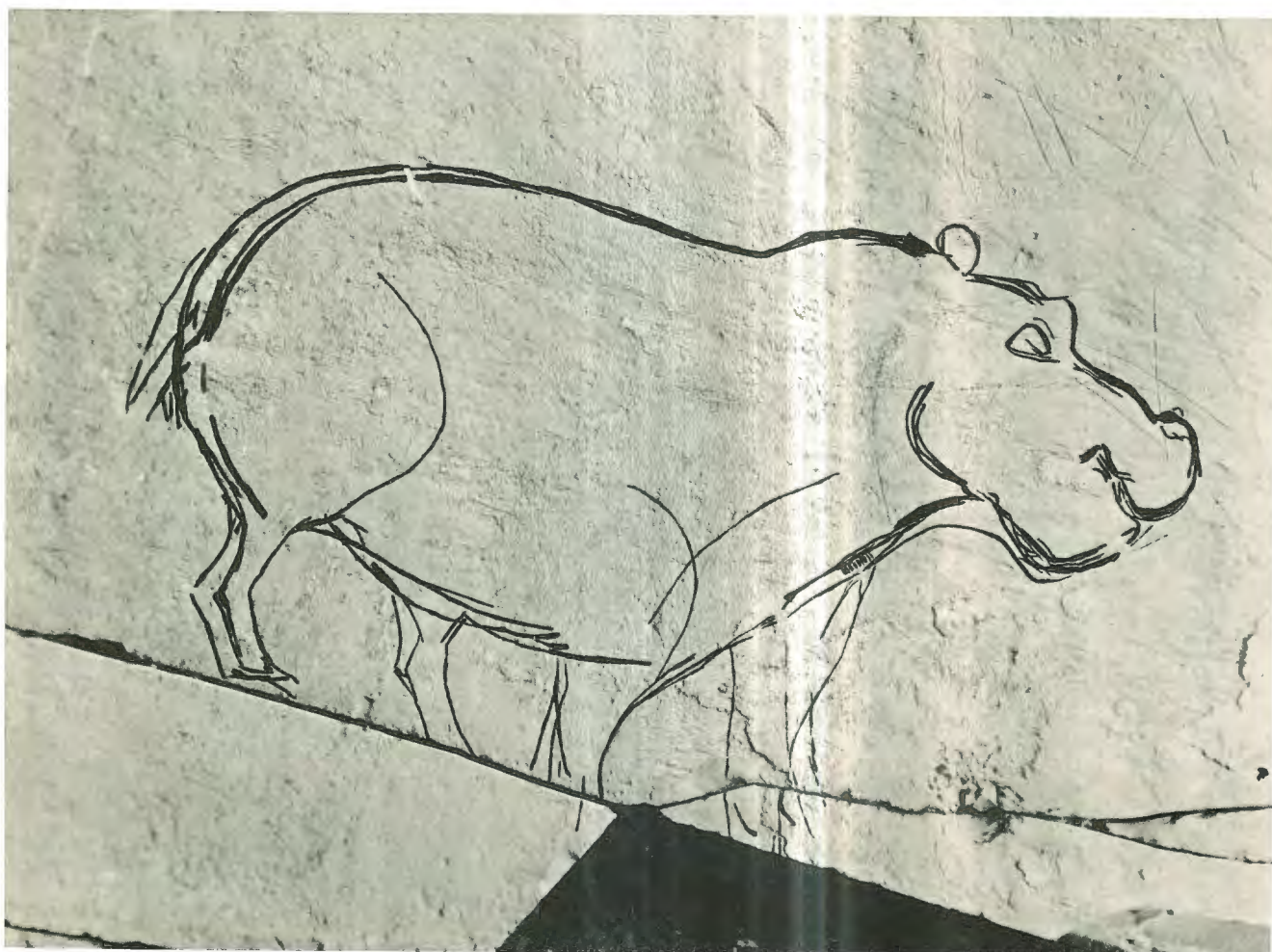
3 See pp. 13, 16. 68. M 872
10 cm.





1 |—————| 10 cm. See pp. 12, 16.

45. M 535a



2 |—————| 10 cm. See p. 16.

45. M 549b



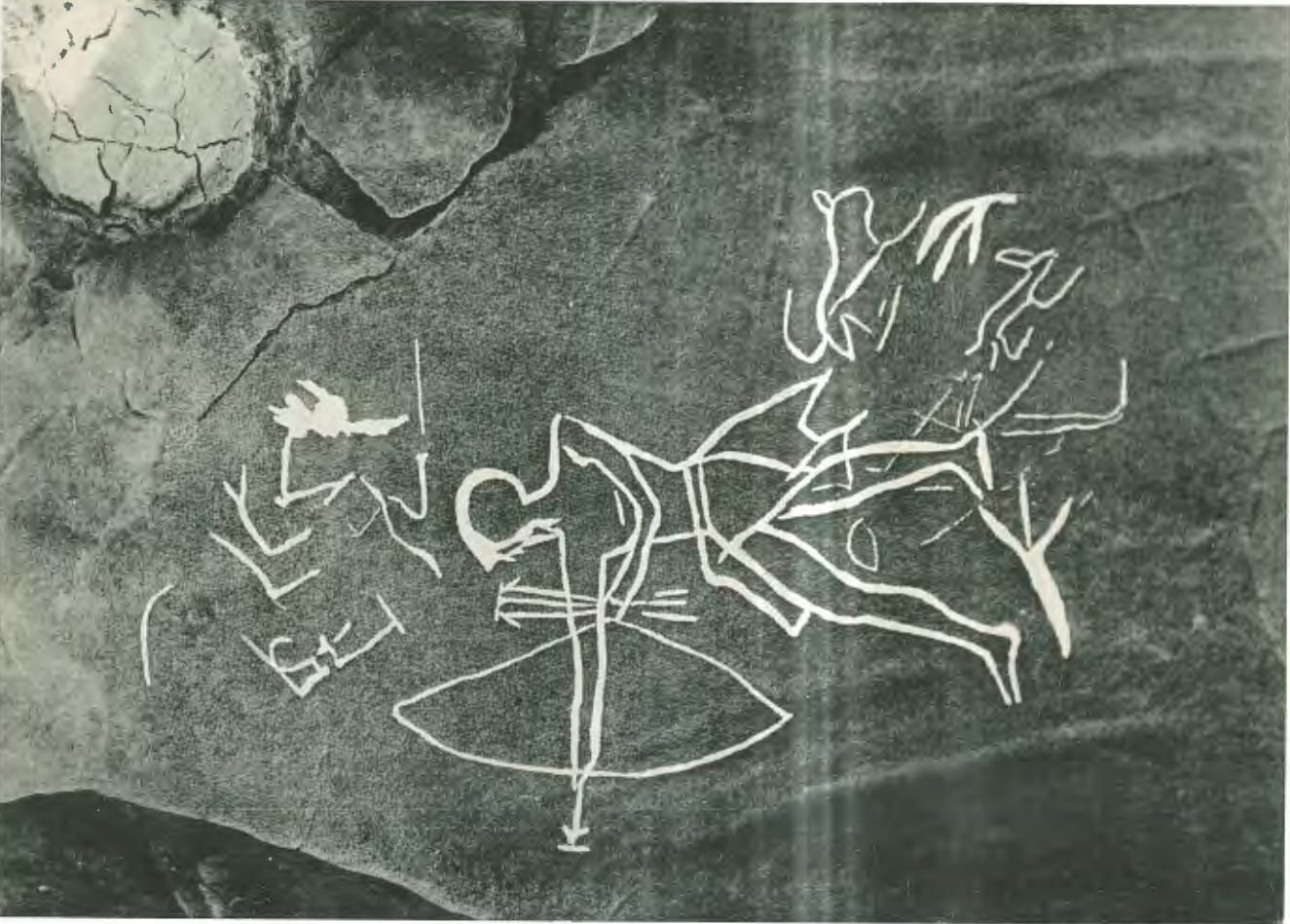


68. M 875

10 cm.

See p. 16.

2



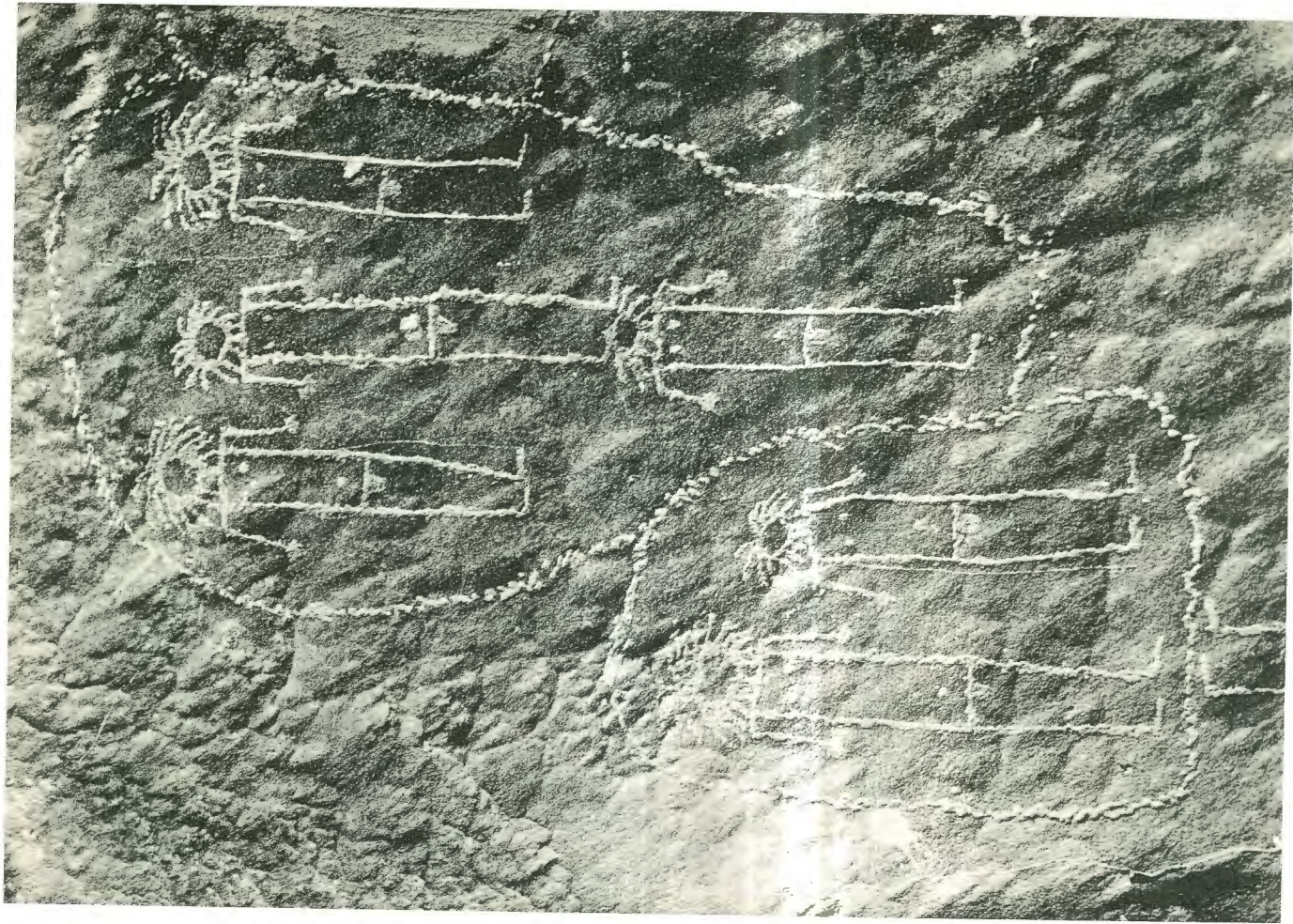
68. M 854b

10 cm.

See p. 16.

1





48. M 592

See p. 16.

10 cm.

2



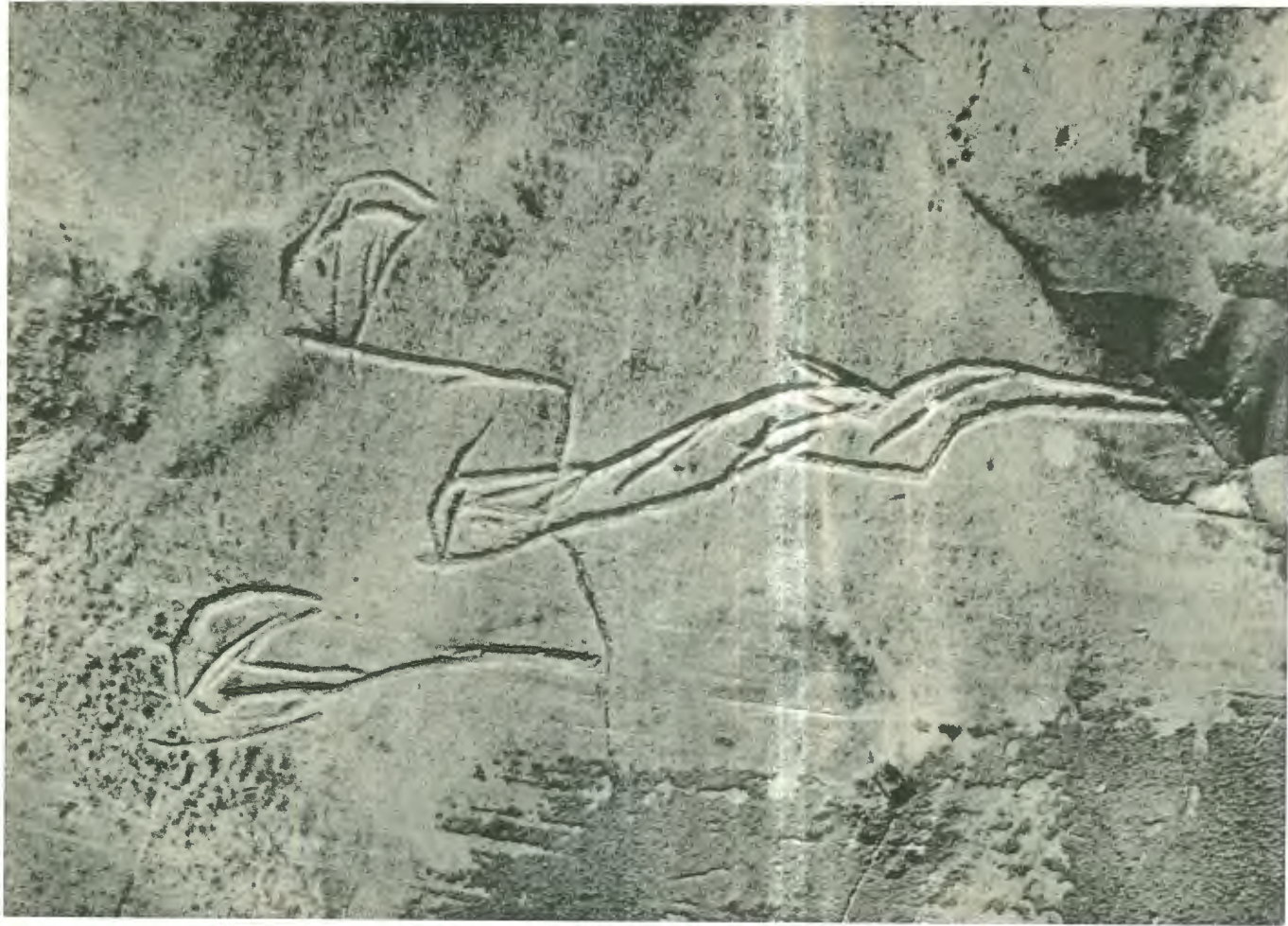
50. M 607

10 cm.

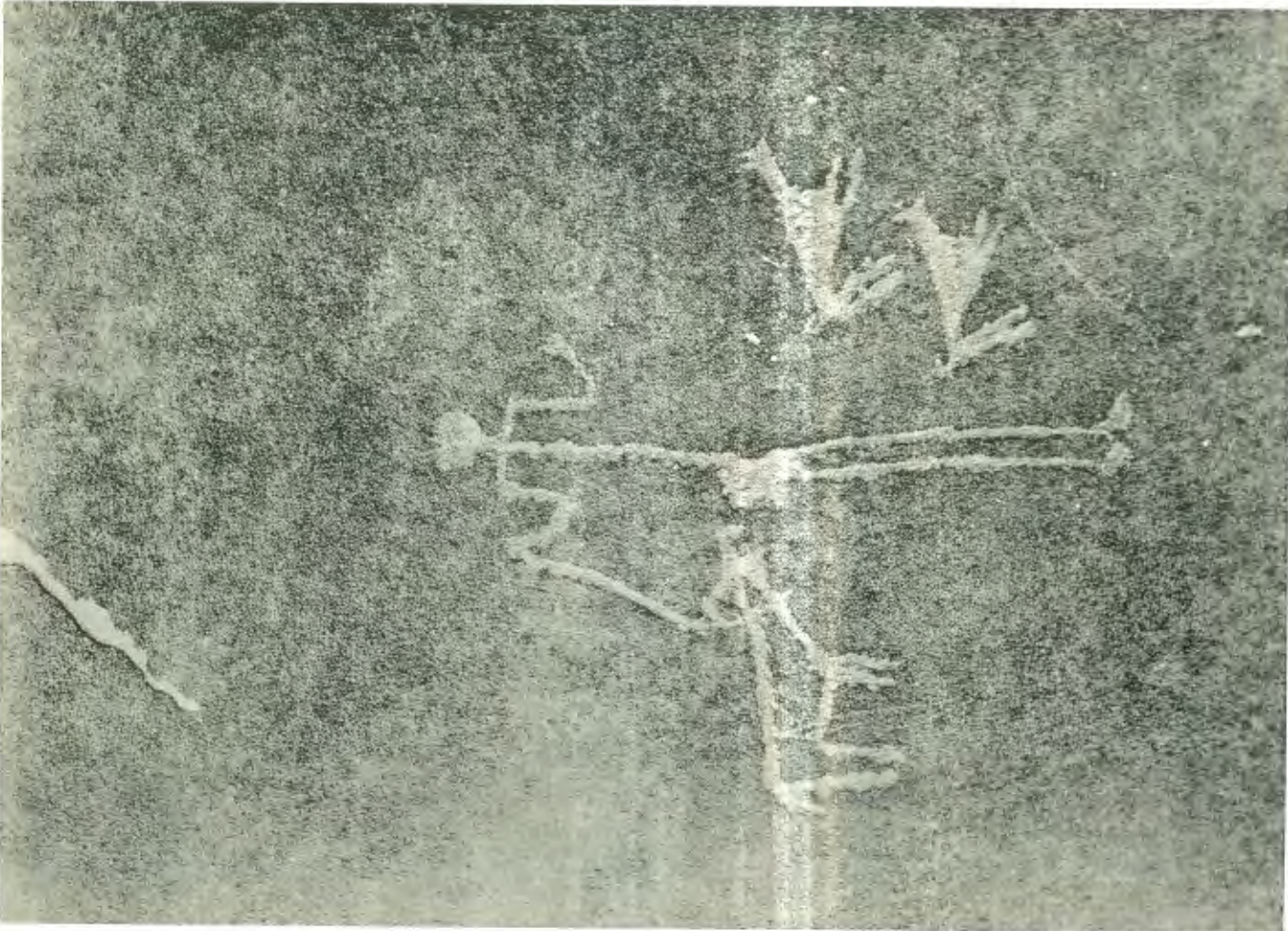
See p. 19.

1





46. M 553
See p. 17.
10 mm. (!)
2



53. M 648
See p. 17.
10 cm.
1





1 |——| 10 mm. (!) See p. 18.

53. M 640



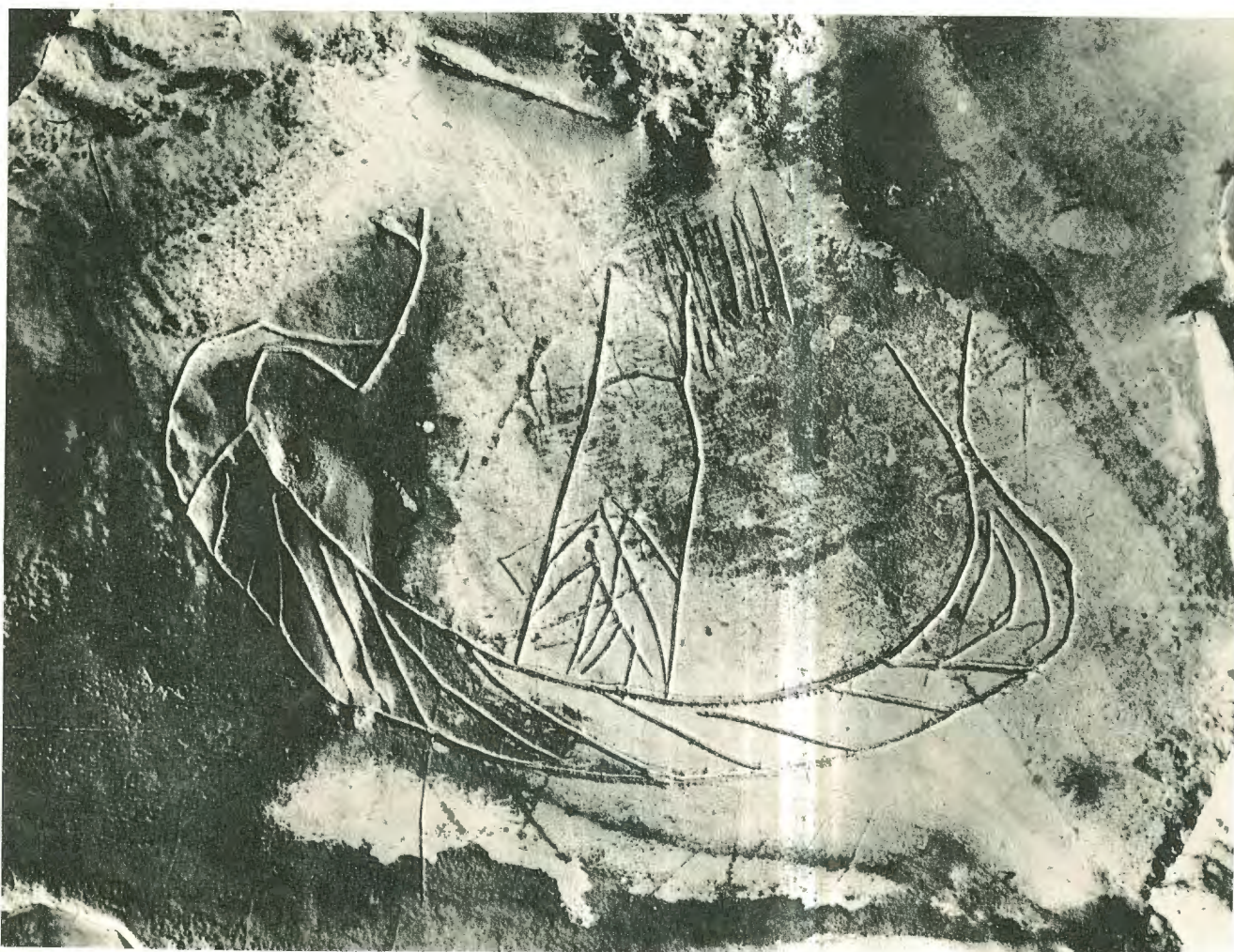
2 |——| 10 mm. (!) See p. 18.

53. M 643



1 |—————| 10 cm. See p. 17.

35. M 475 bis 11



2 |—————| 10 mm. (!) See p. 17.

46. M 552



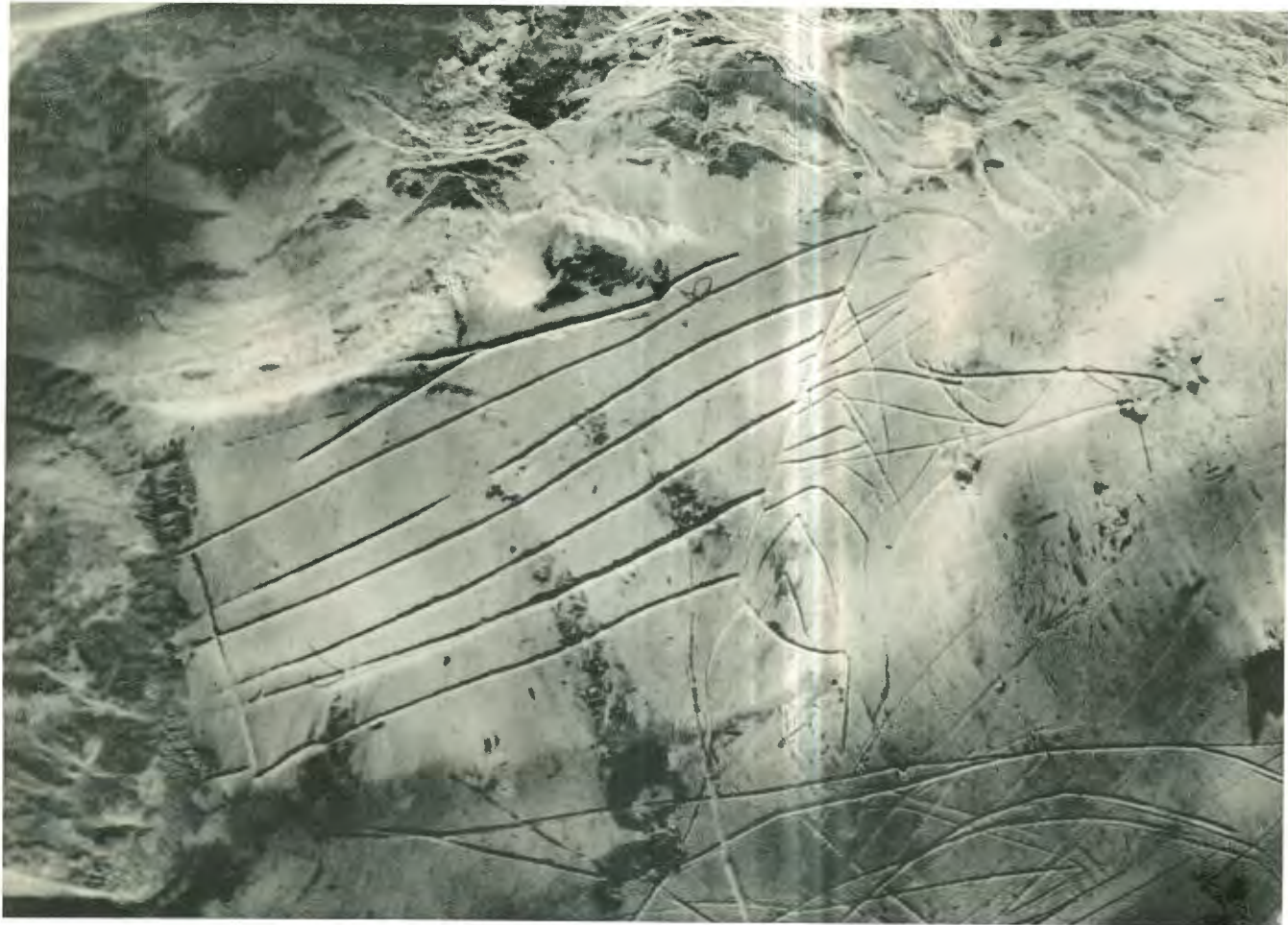


53. M 641

See p. 18.

10 cm.

2



46. M 551

See p. 17.

10 mm. (!)

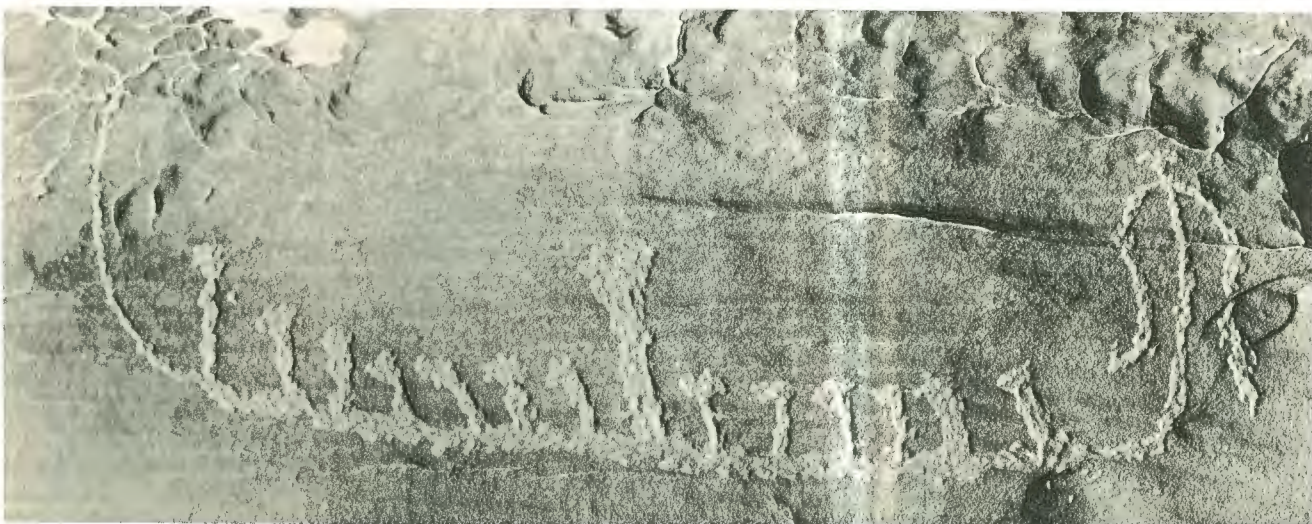
1





1 |——| 10 cm. See p. 18.

53. M 625



2 |——| 10 cm. See p. 18.

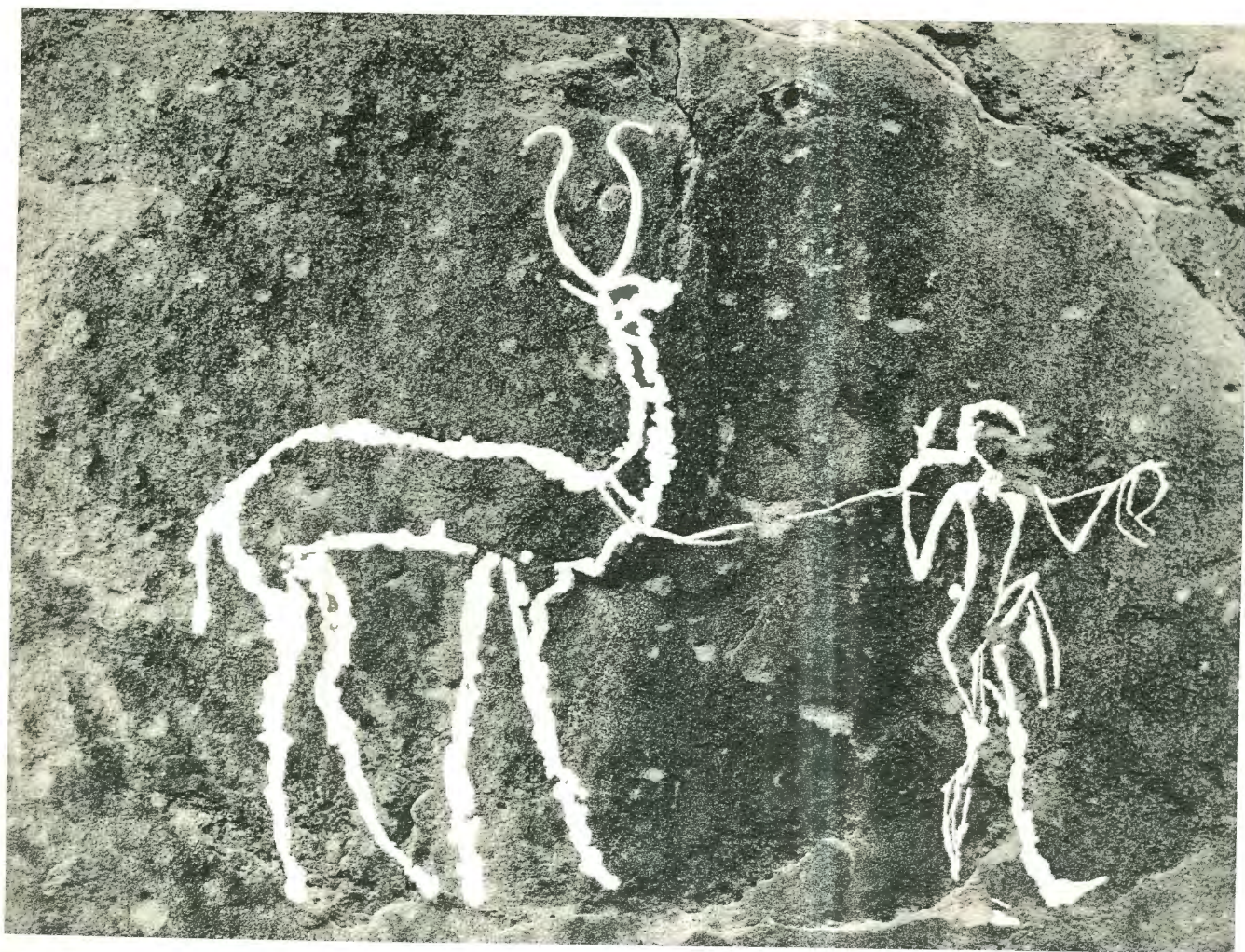
53. M 627



3 |——| 10 cm. See p. 18.

53. M 629





1 |—————| 10 cm. See p. 19.

36. M 478 a



2 |—————| 10 cm.
See p. 19.

60. M 695 a



3 |—————| 10 cm.
See p. 19.

60. M 694 a



72. M 934

See p. 26.

10 mm. (1)

2



72. M 924

See pp. 21, 26.

10 cm.

1





1 |—————| 10 cm. See pp. 20 sq., 26.

72. M 937



2 |—————| 10 cm. See pp. 20, 26, 27.

72. M 940



72. M 935
See pp. 20, 21, 26.
10 cm.
2



72. M 931
See pp. 21, 26.
10 mm. (!)
1



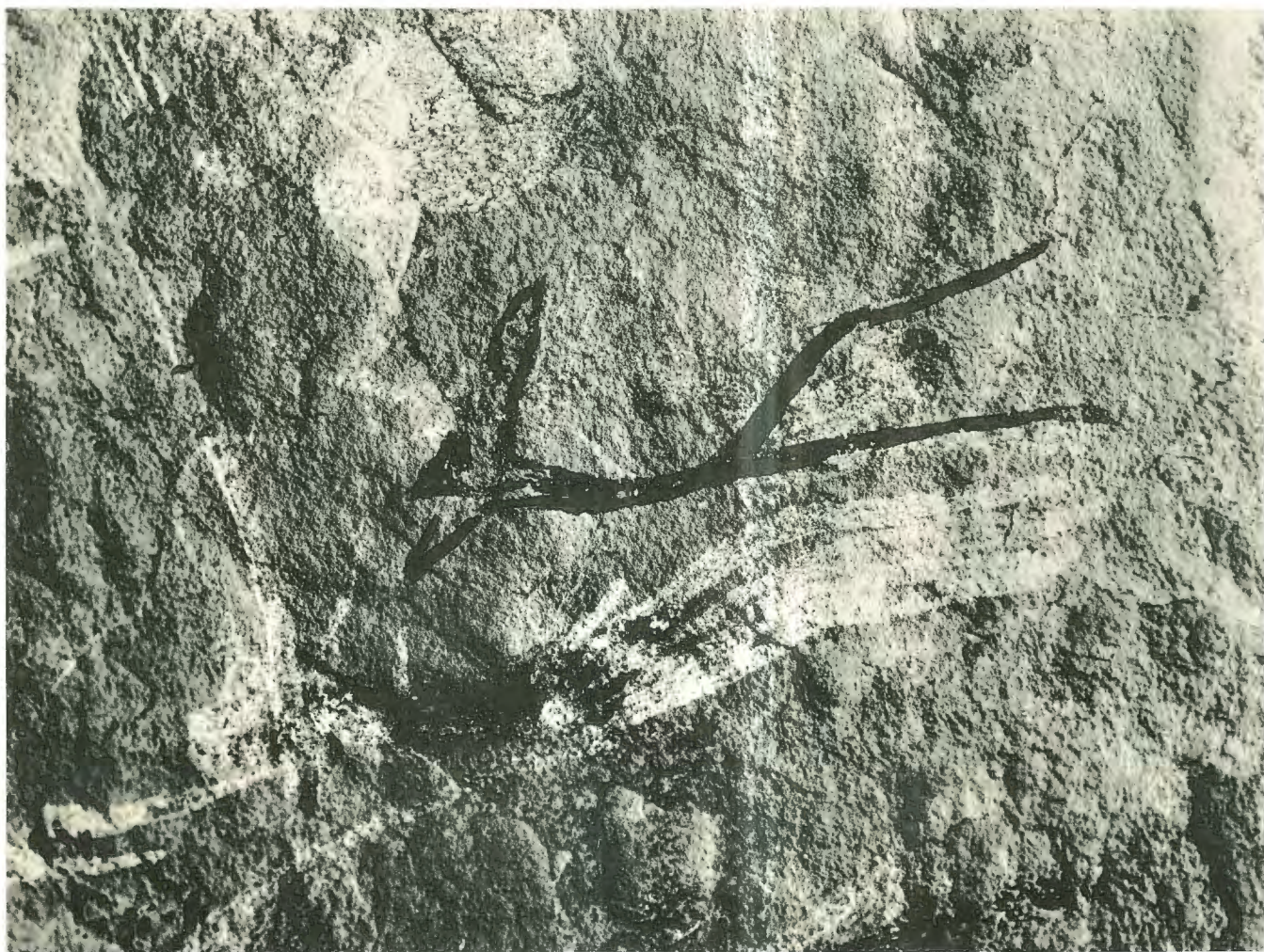


1 |—————| 10 cm. See pp. 21, 26. 72. M 929



2 |—————| 10 cm. See pp. 21, 23. 83. M 1127 a





1

See pp. 22, 26, 27.

10 cm.

75. M 1059



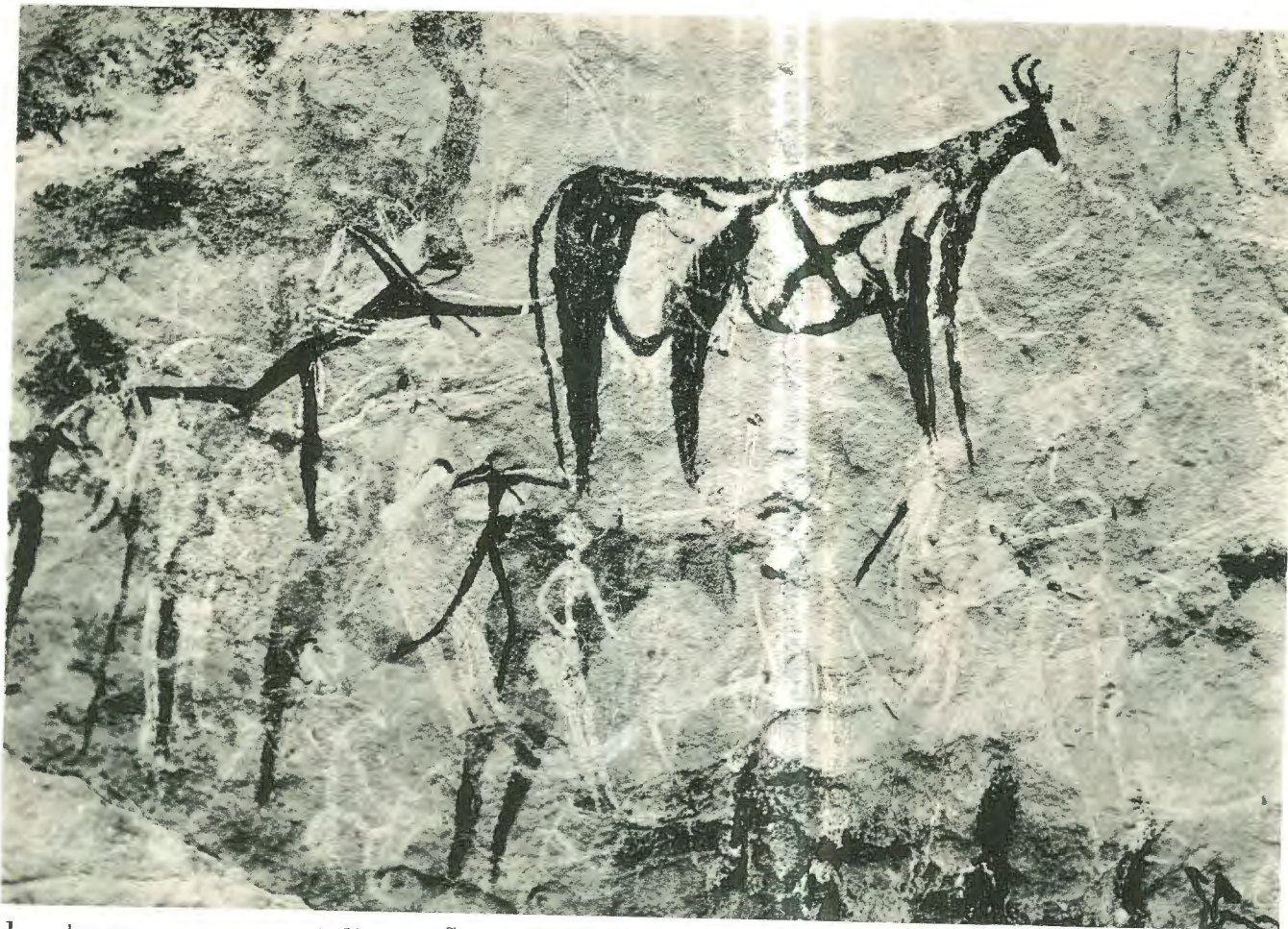
2

10 cm.

See pp. 22, 27.

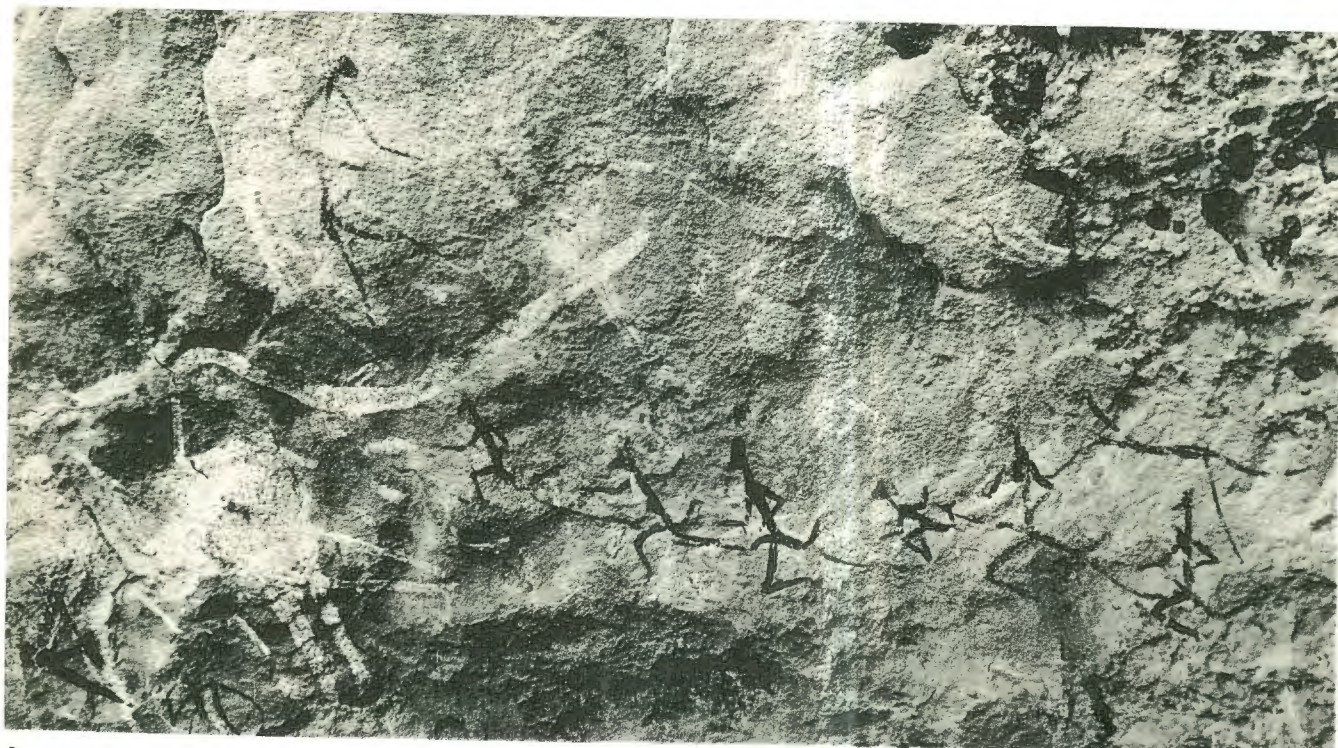
75. M 1058





1 |—————| 10 cm. See pp. 20, 22, 24, 27.

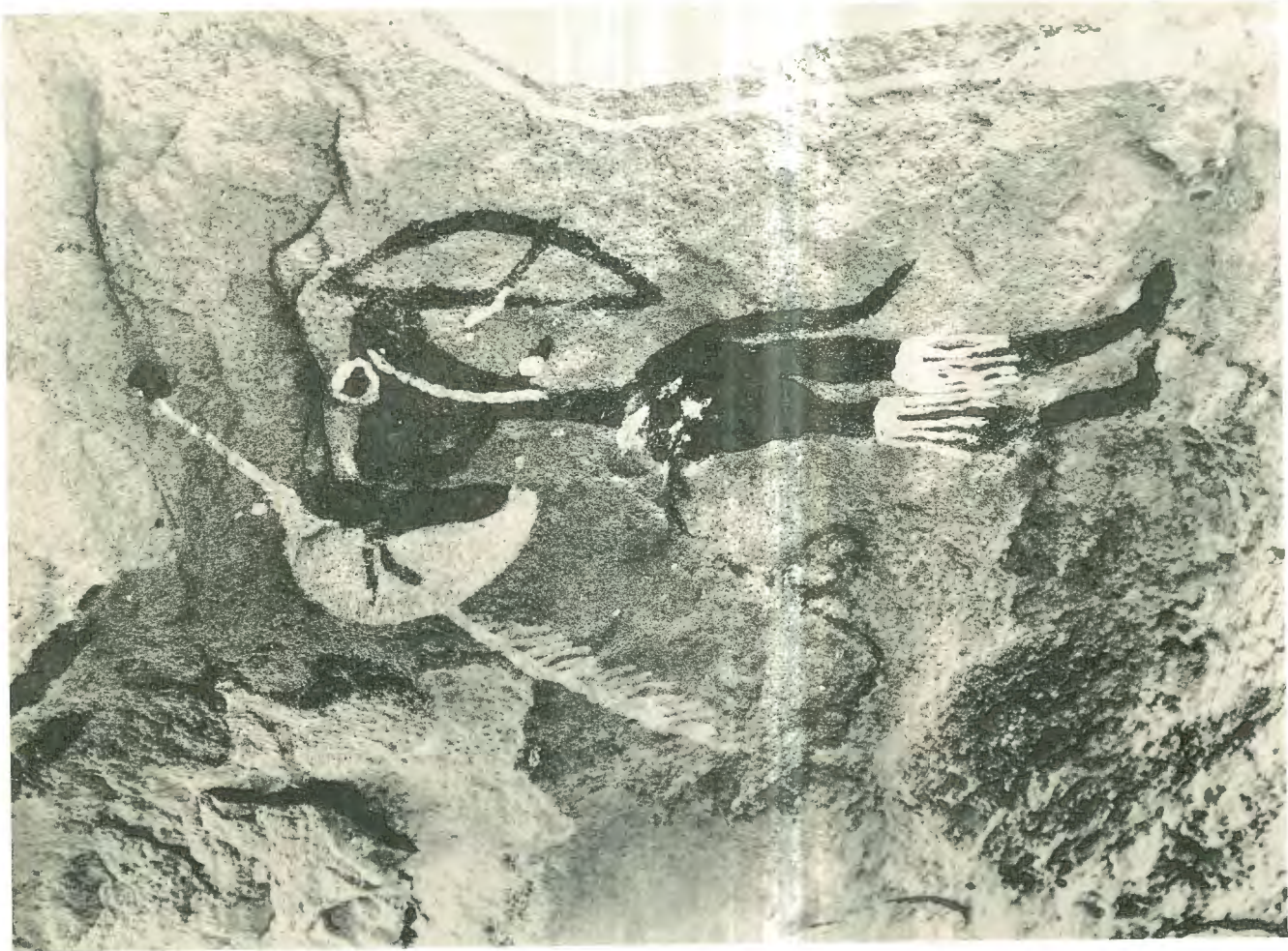
75. M 1060



2 |—————| 10 cm. See pp. 23, 25, 26, 27.

75. M 1057





81. M 1119

10 cm.

See pp. 21, 23, 25.

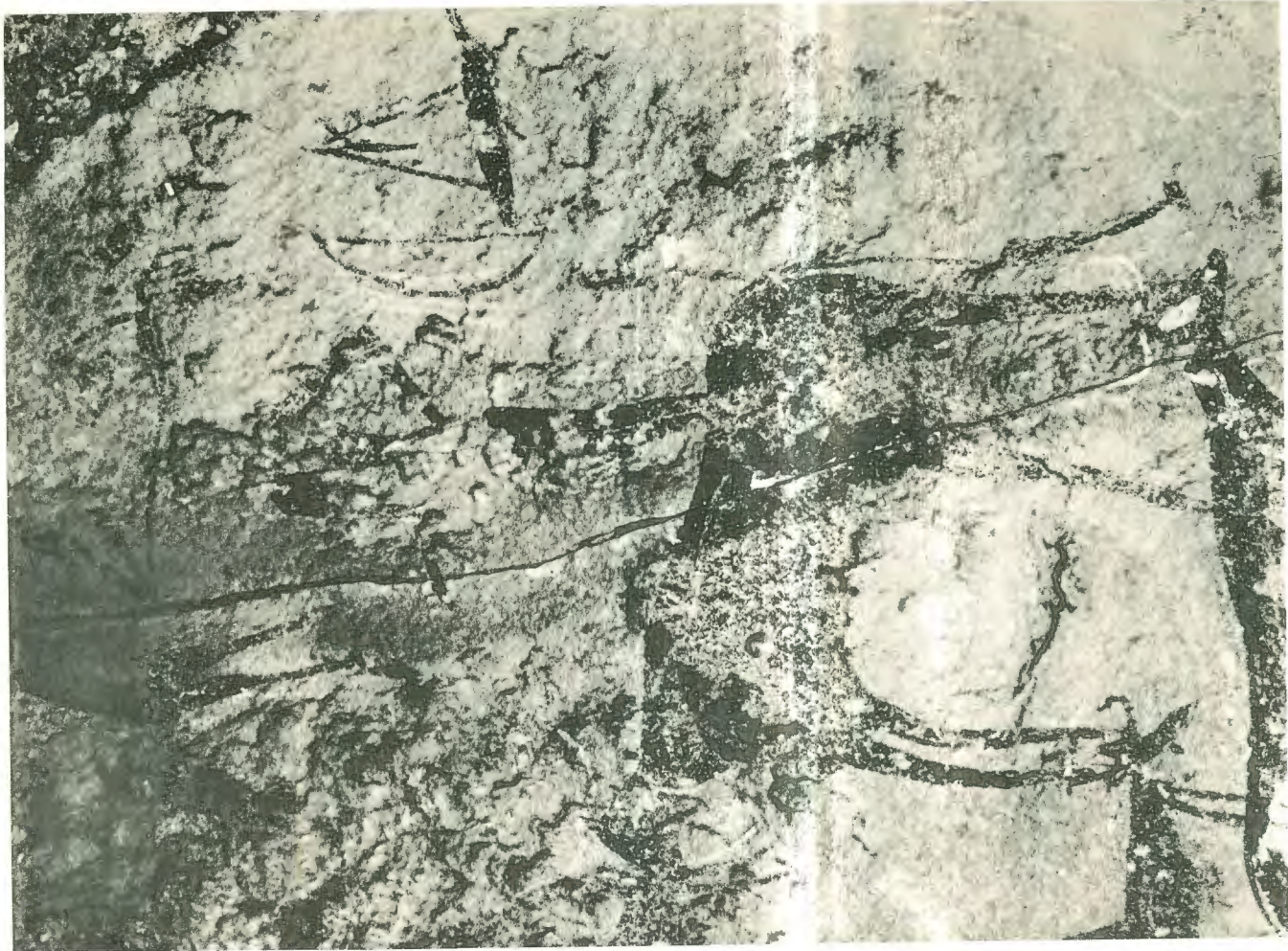


81. M 1121

10 cm.

See p. 23.





76. M 1076

See pp. 22, 25.

10 cm.

2



80. M 1113

See pp. 21, 27.

10 cm.

1





1 |—————| 10 cm. See pp. 20, 21, 26.

76. M 1073



2 |—————| 10 cm. See p. 20.

73. M 962 a





1 |—————| 10 cm. See pp. 20, 22.

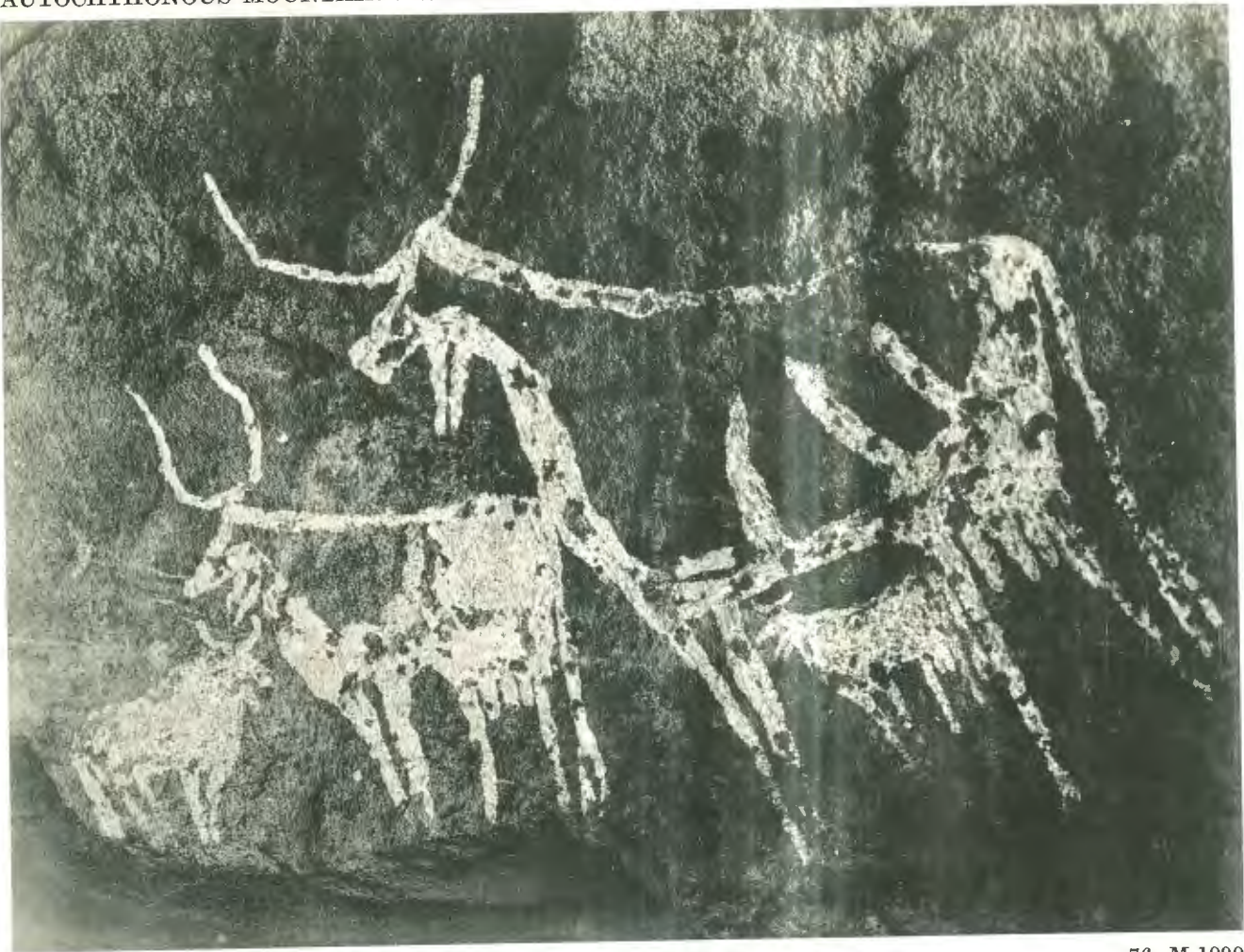
76. M 1085



2 |—————| 10 cm. See pp. 20, 22, 24.

83. M 1134





1 |—————| 10 cm. See pp. 20, 22, 26.

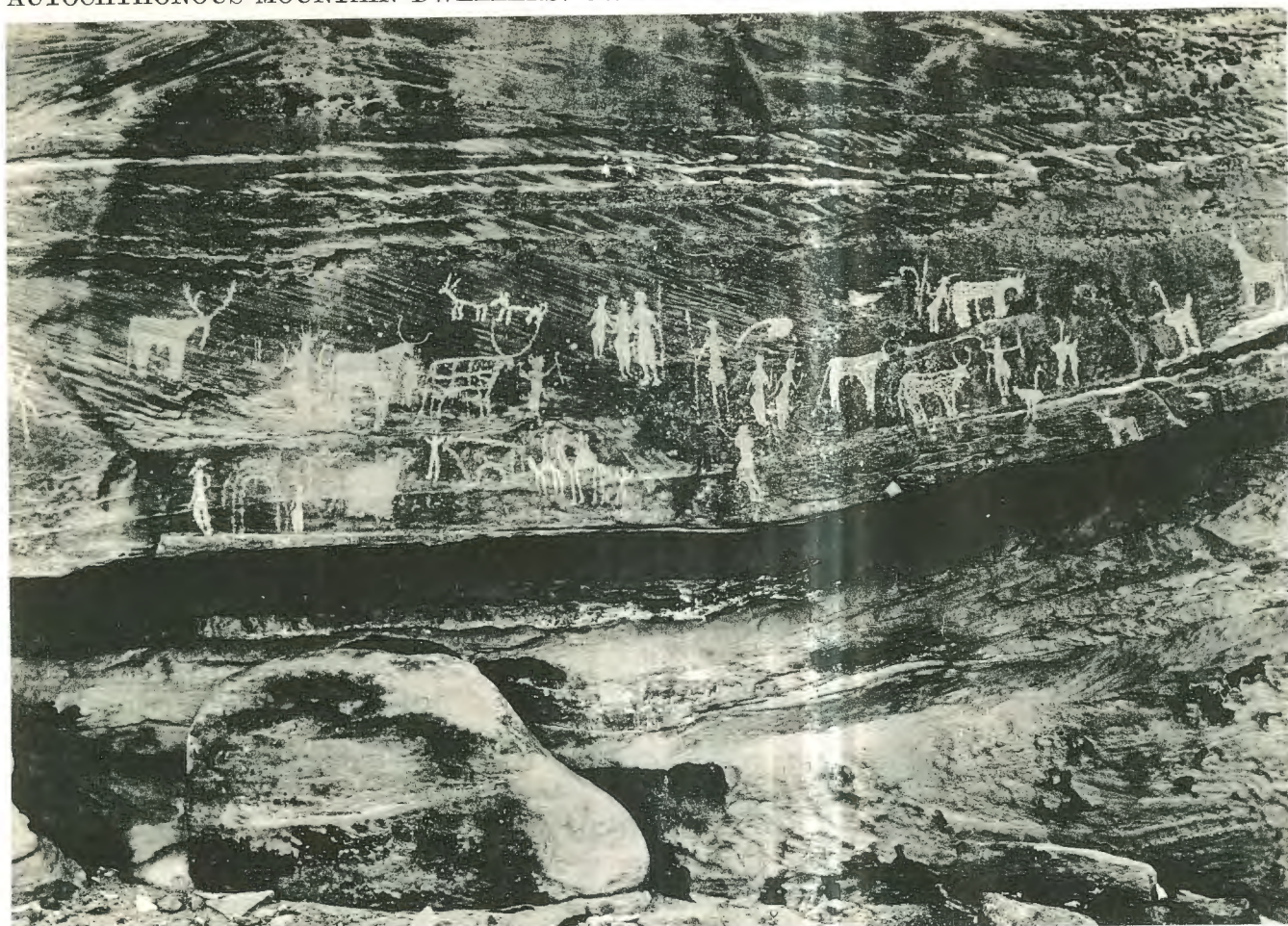
76. M 1090



2 |—————| 10 cm. See pp. 20, 22, 26.

76. M 1102





1 |—————| 100 cm. (!) See pp. 20, 21.

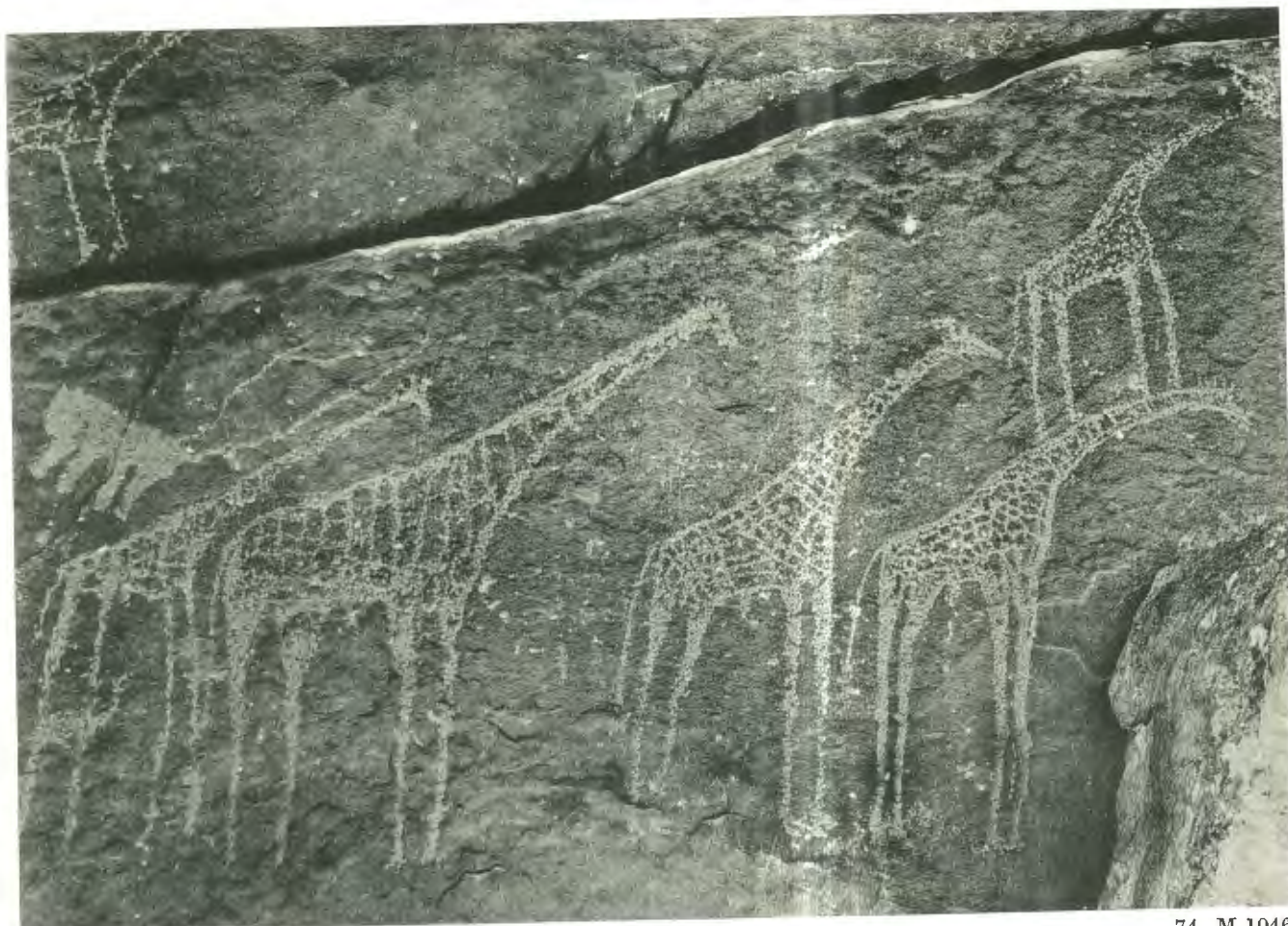
74. M 1048



2 |—————| 10 cm. See pp. 20, 21.

74. M 1051





1 |——| 10 cm. See p. 20

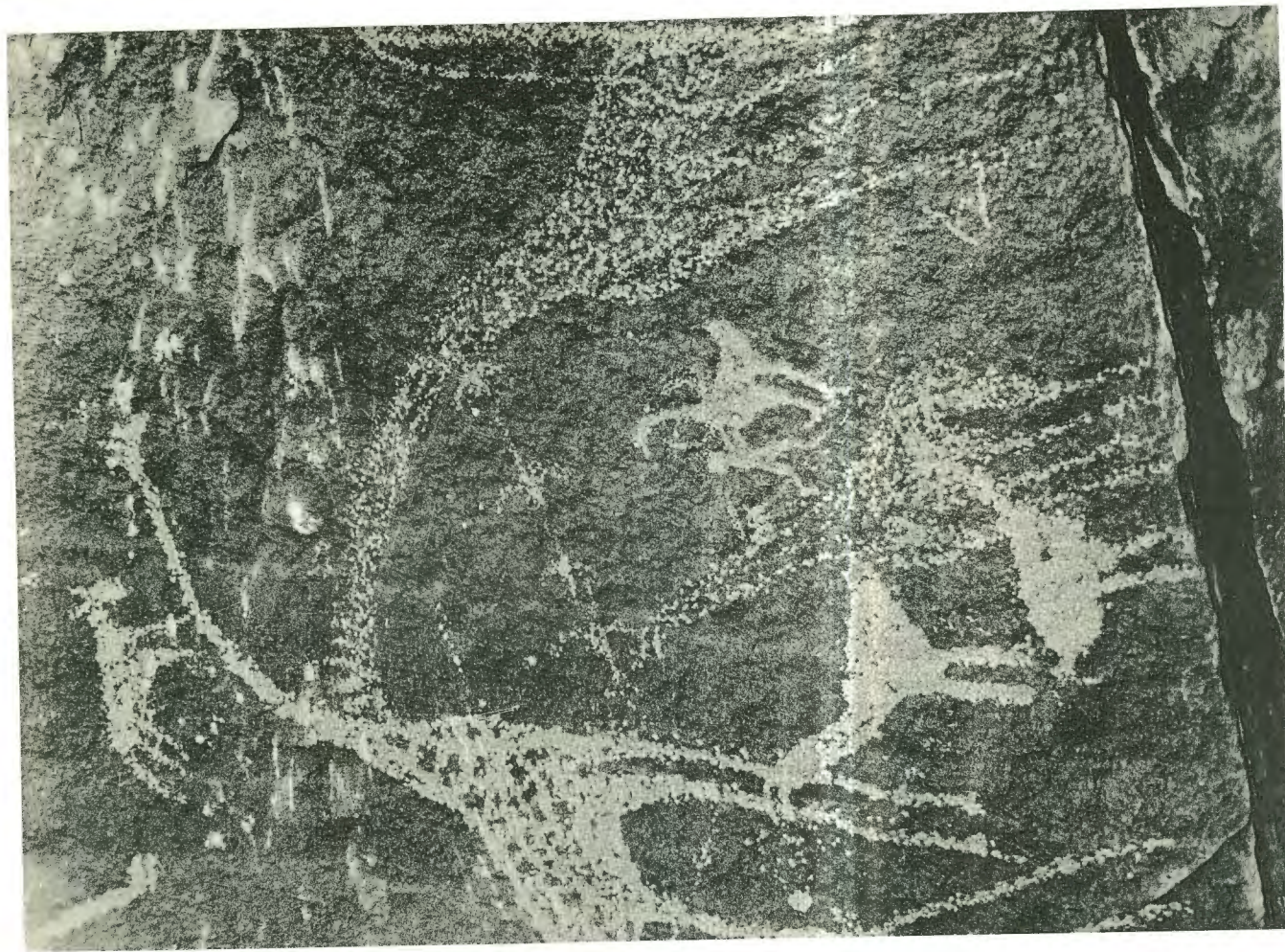
74. M 1046



2 |——| 10 cm. See pp. 20, 21, 23.

74. M 1044





74. M 1036

See pp. 20, 23, 26.

10 cm.

2



74. M 1045

See p. 21.

10 cm.

1





74. M 1041

1 |—————| 10 cm. See pp. 20, 21, 23.



73. M 985

2 |—————| 100 (!) cm. See pp. 13, 21, 22, 23.



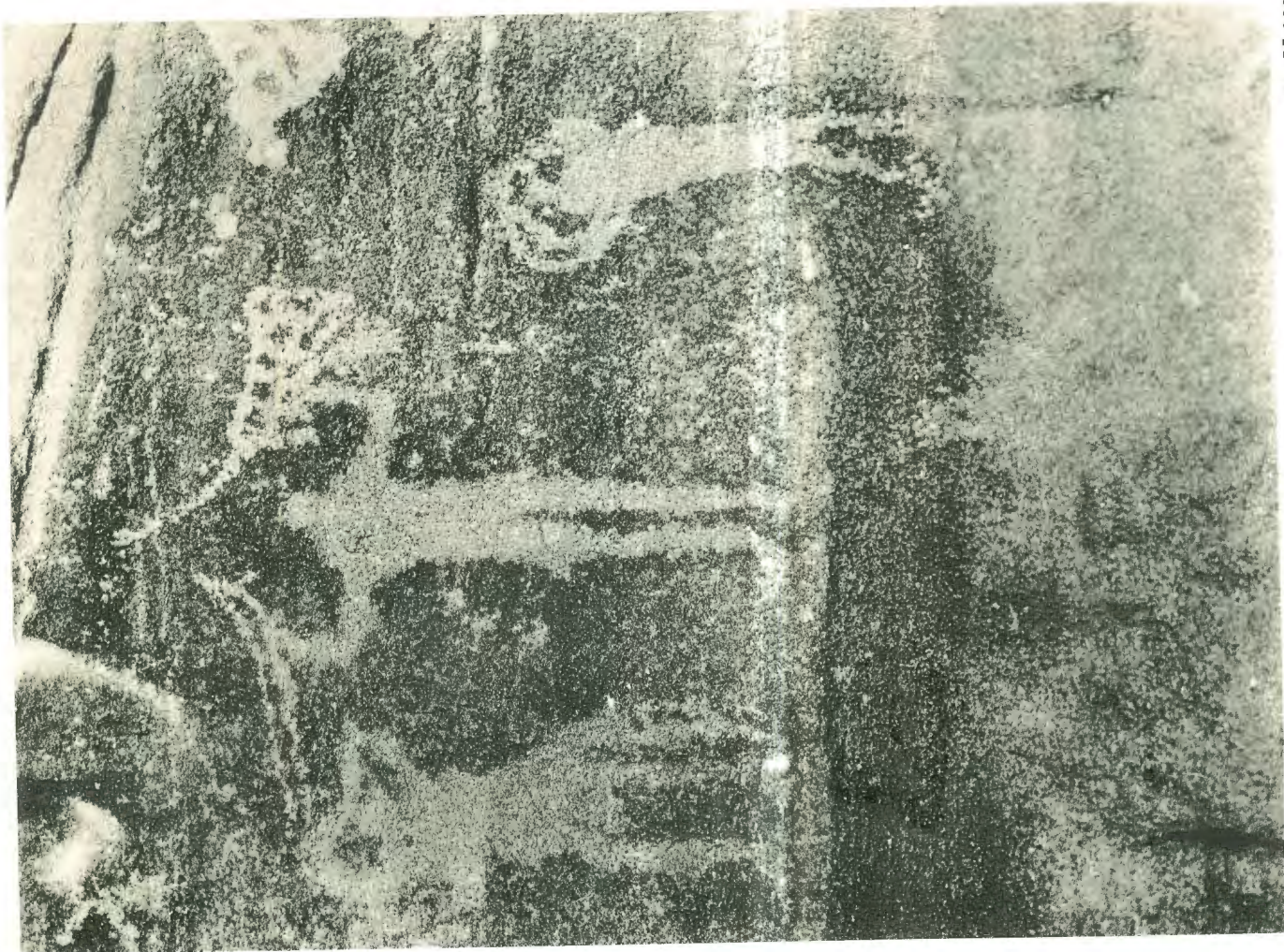


73. M 986

See pp. 21, 22, 23.

10 cm.

2

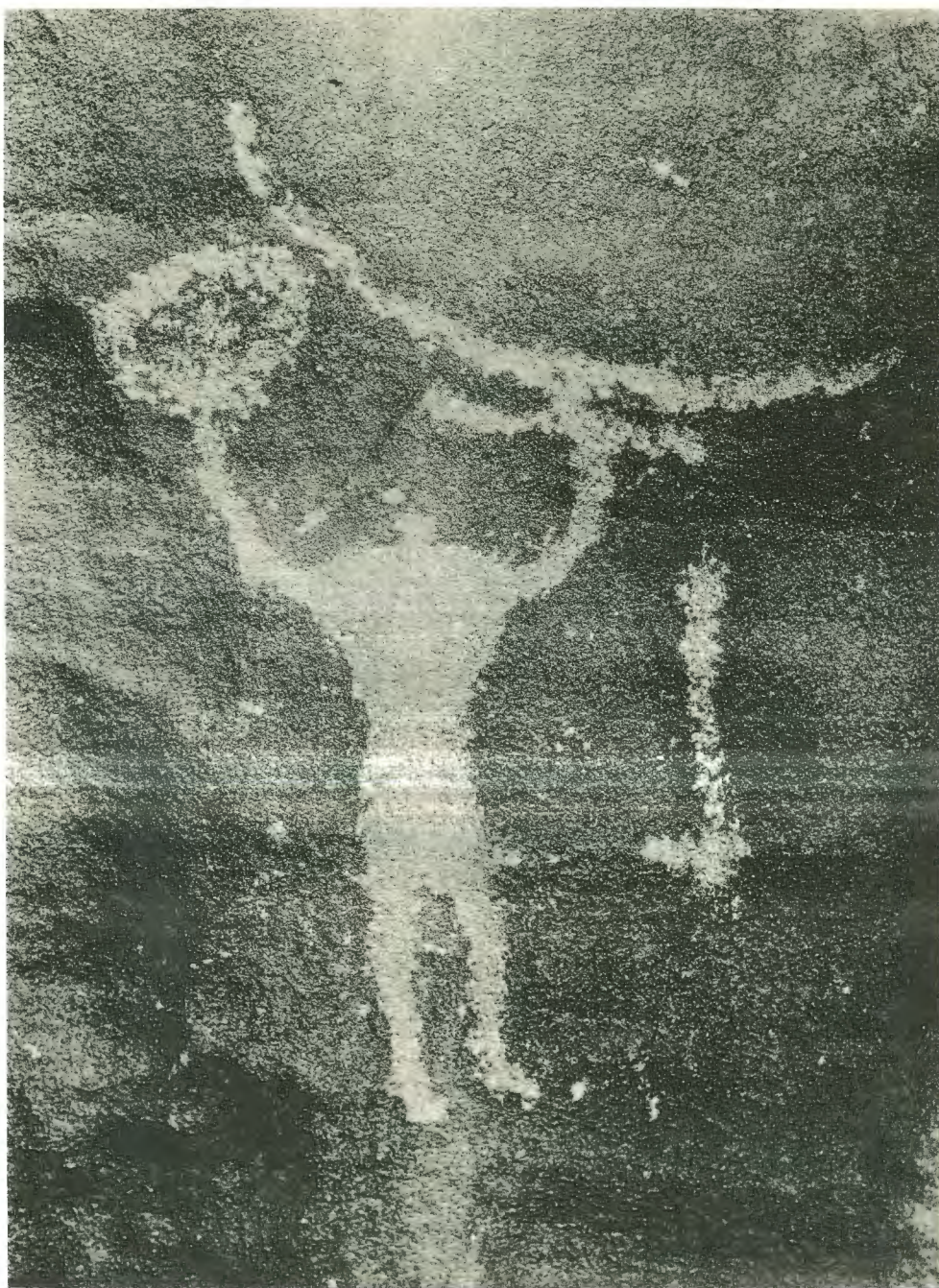


73. M 988

See pp. 21, 22, 23, 34.

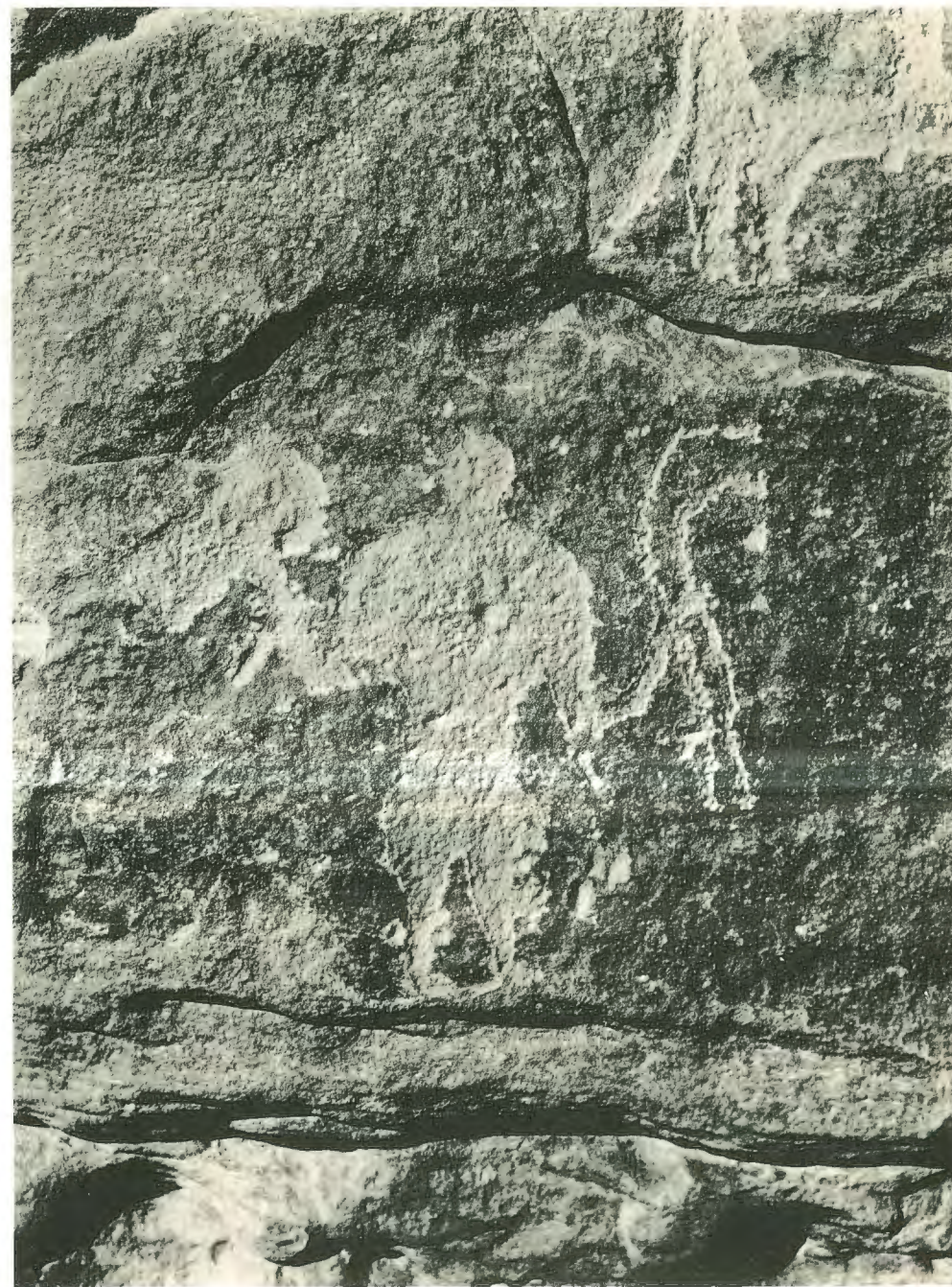
10 cm.

1



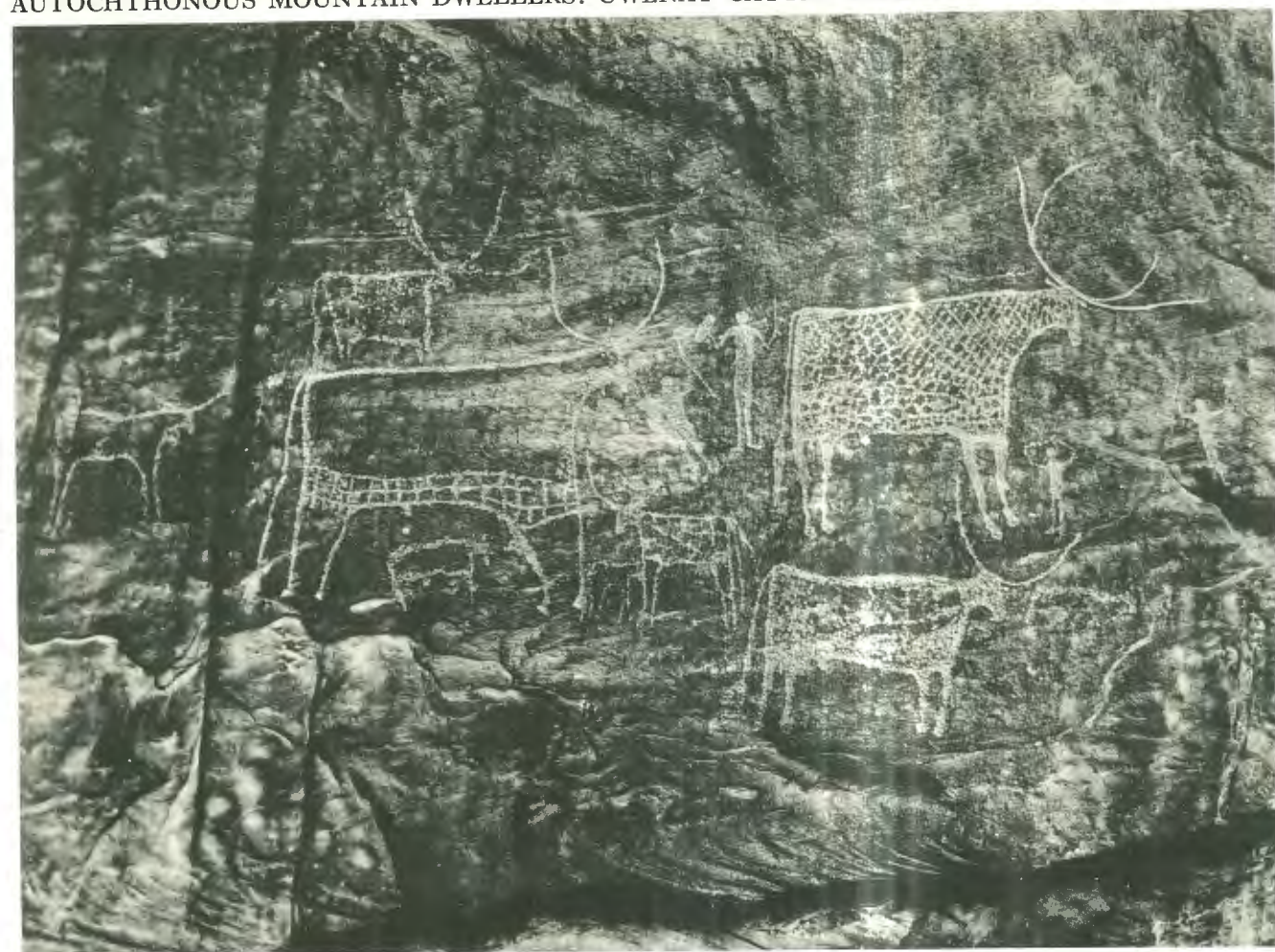
1 |—————| 10 cm. See pp. 21, 22, 23.

73. M 993



2 |—————| 10 cm. See pp. 21, 22, 23.

73. M 1013



1 |-----| 100 (!) cm. See pp. 20, 22, 23, 25, 34. 74. M 1029



2 |-----| 10 cm. See pp. 20, 21, 22. 74. M 1027





1 |——| 10 cm. See pp. 20, 22, 25, 34.

73. M 1001



2 |——| 10 cm. See pp. 20, 22, 25, 34.

73. M 1004





1 |————| 10 cm. See pp. 20, 21, 22.

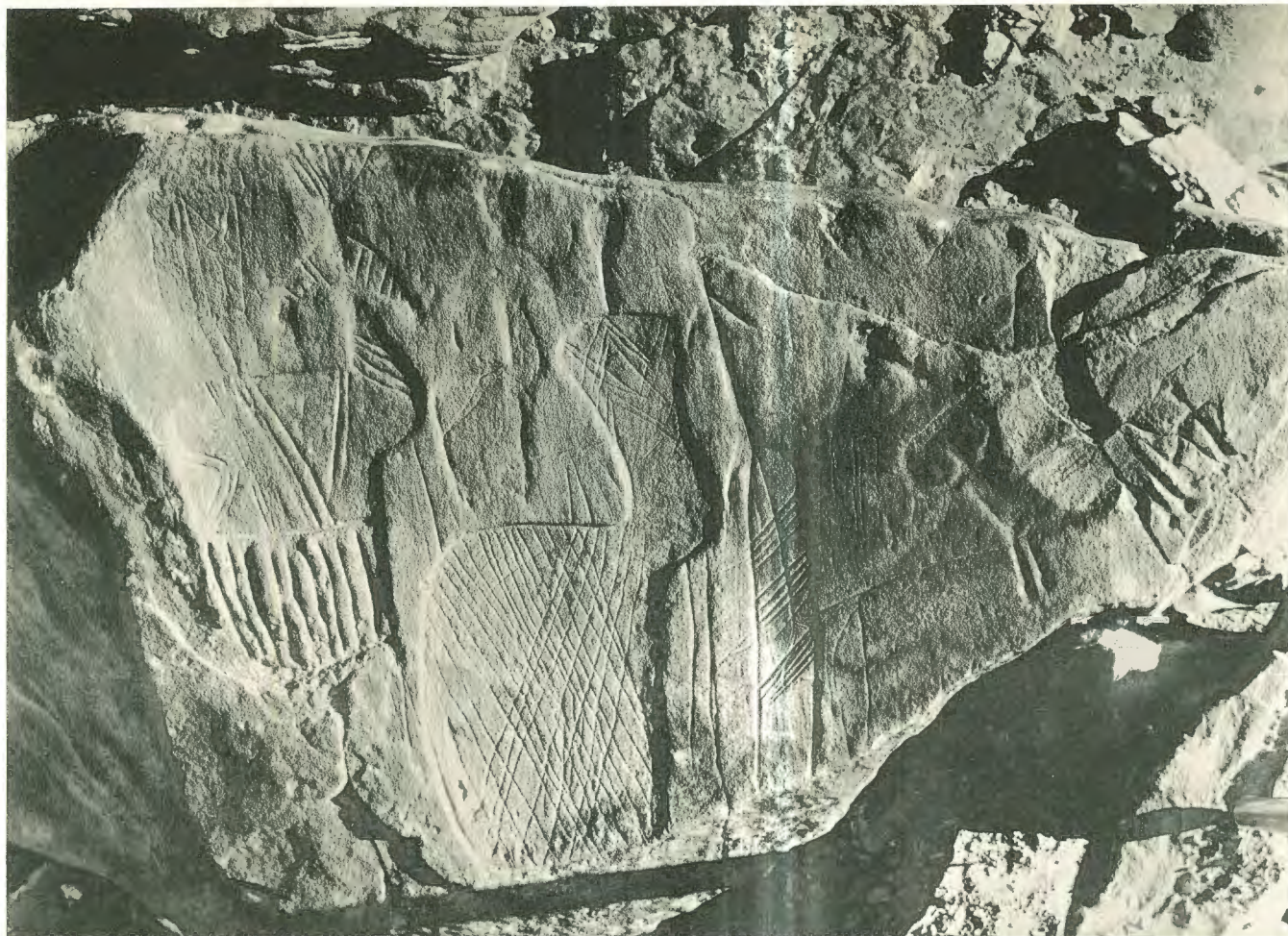
73. M 976



2 |————| 100 (!) cm. See pp. 20, 22.

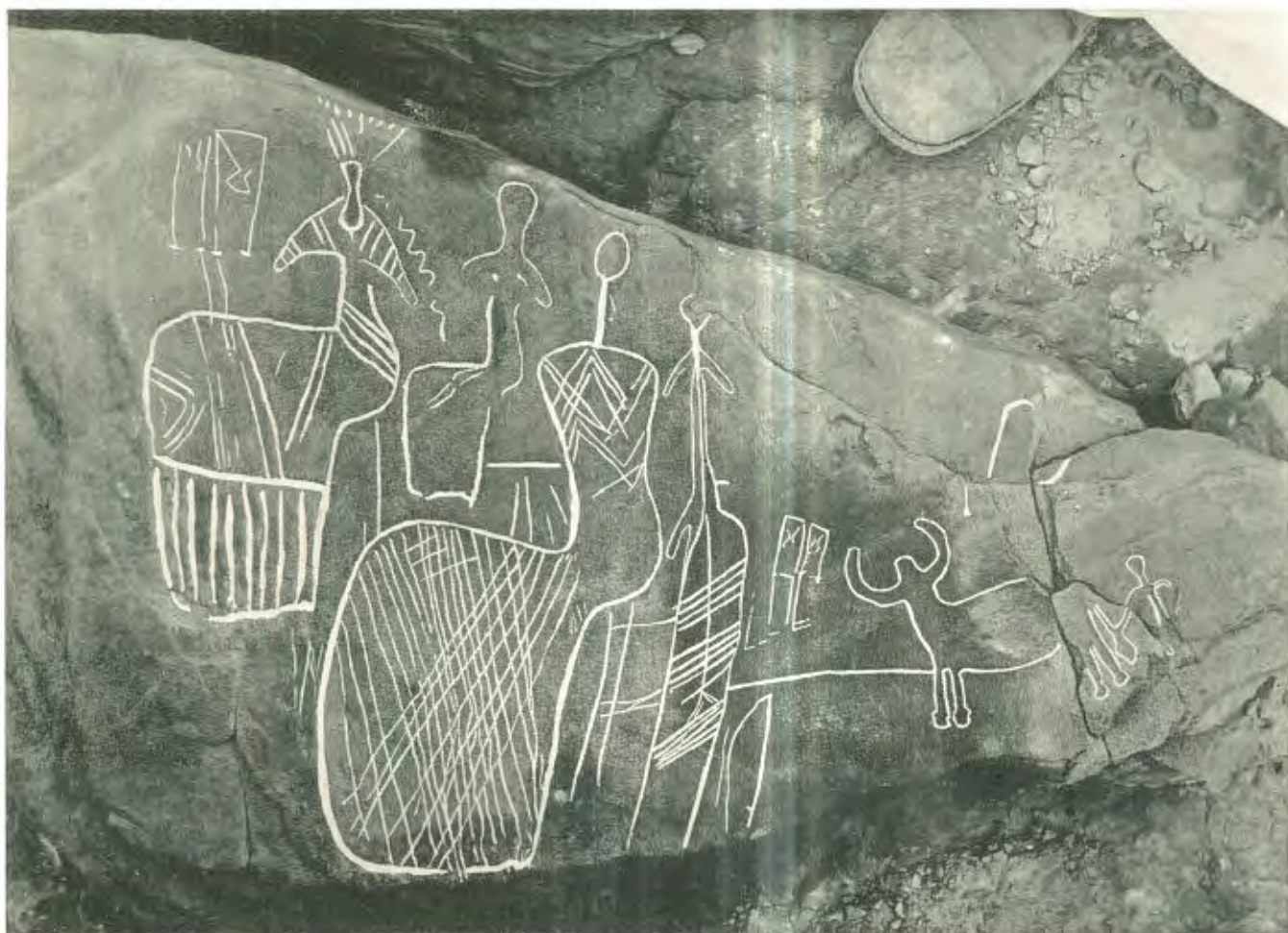
73. M 1020





1 |—————| 10 cm. See pp. 28, 29, 30.

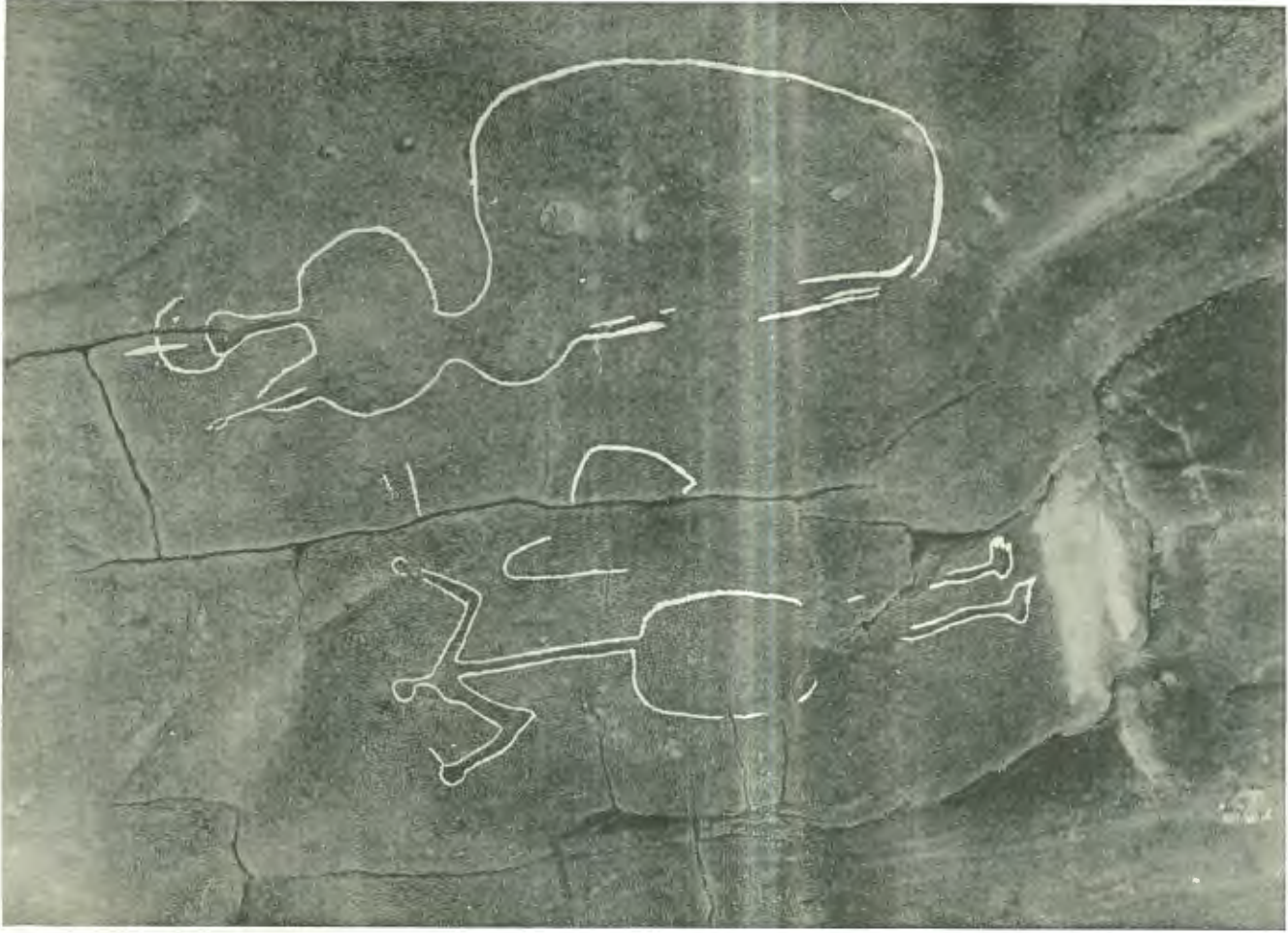
63. M 735



2 |—————| 10 cm. See pp. 28, 29, 30.

73. M 735 c



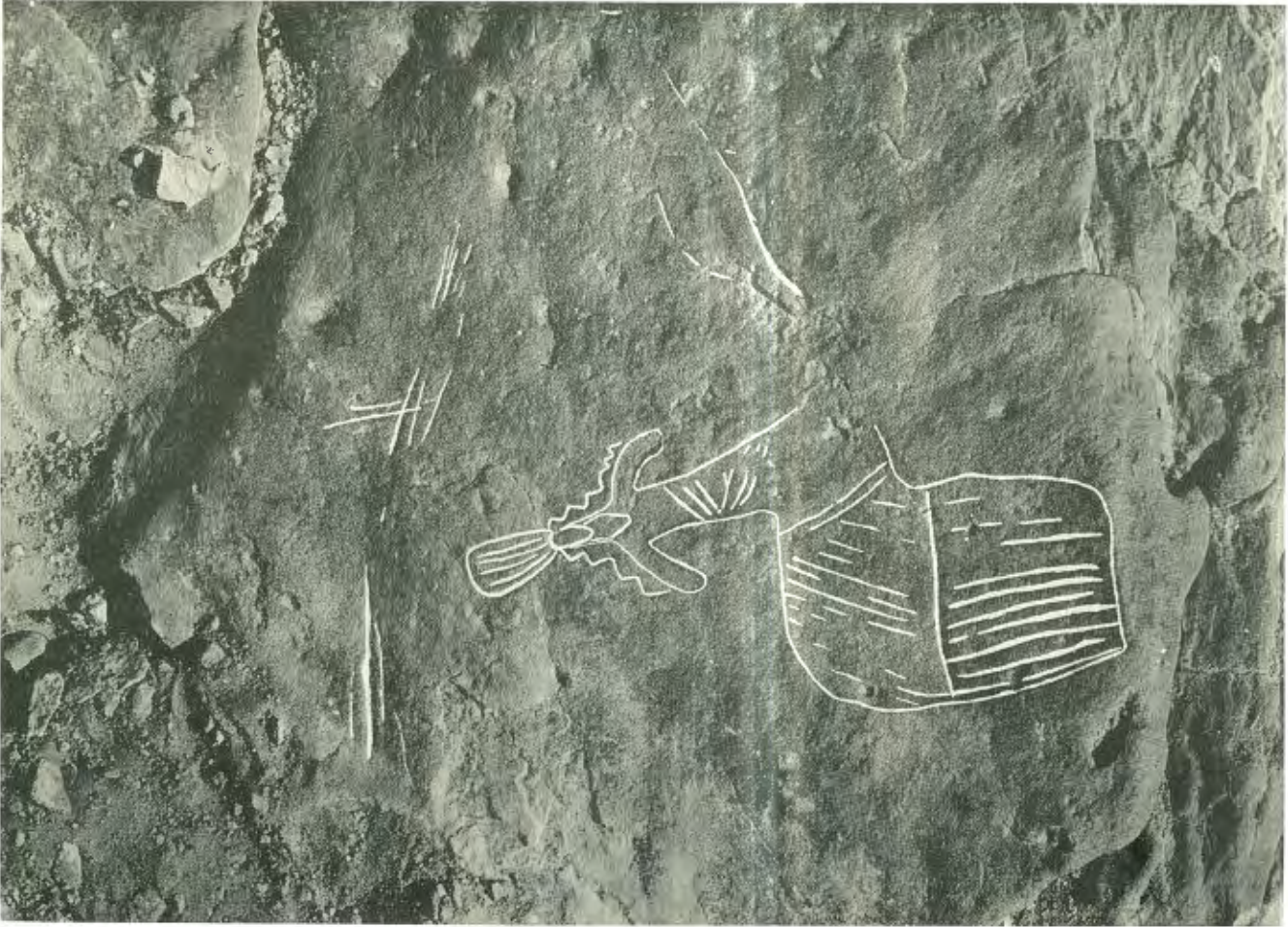


63. M 731

See p. 28.

10 cm.

2



63. M 727 b

See p. 28.

10 cm.

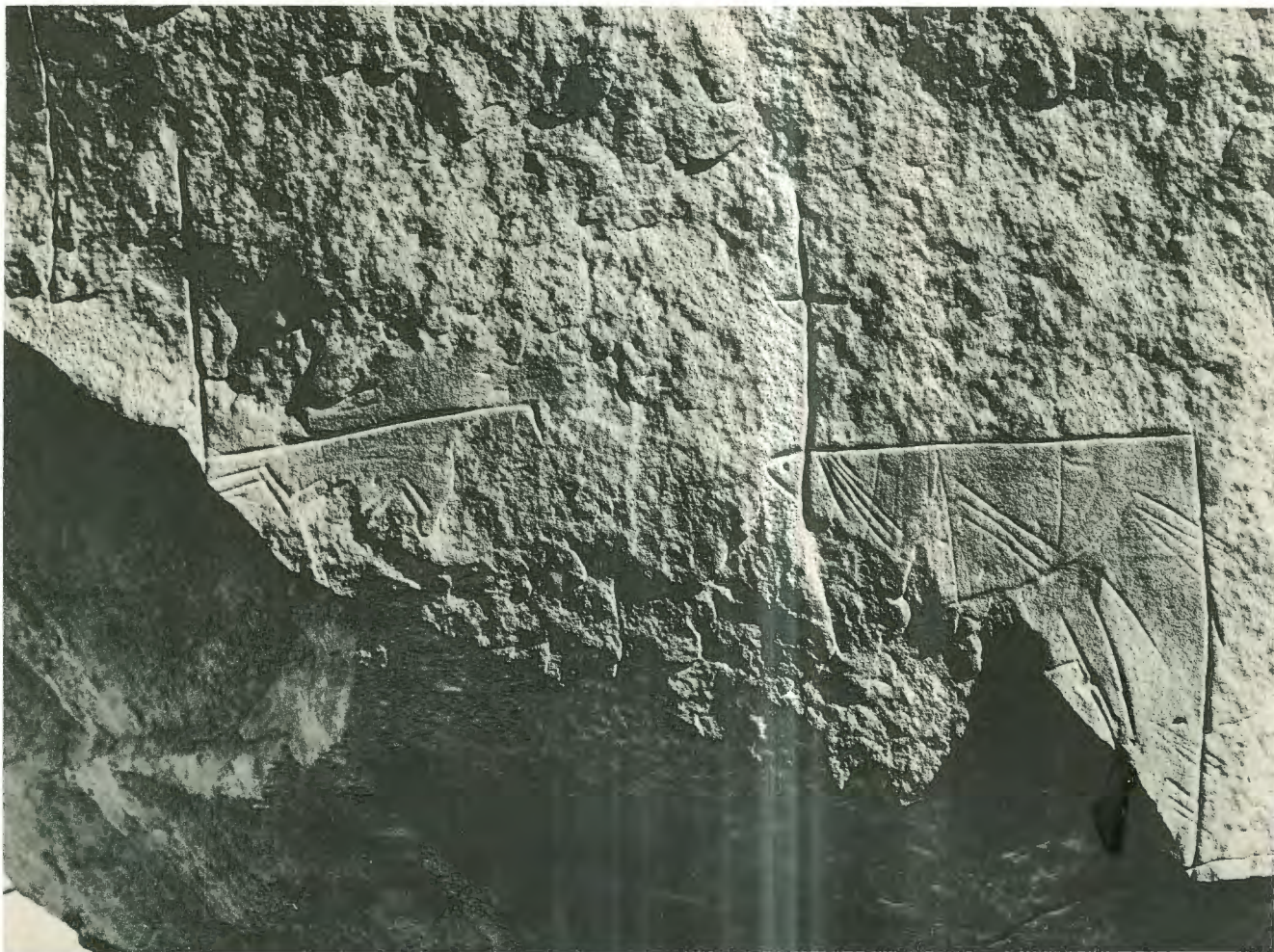
1





1 |—————| 10 cm. See pp. 28, 29.

62. M 705 b



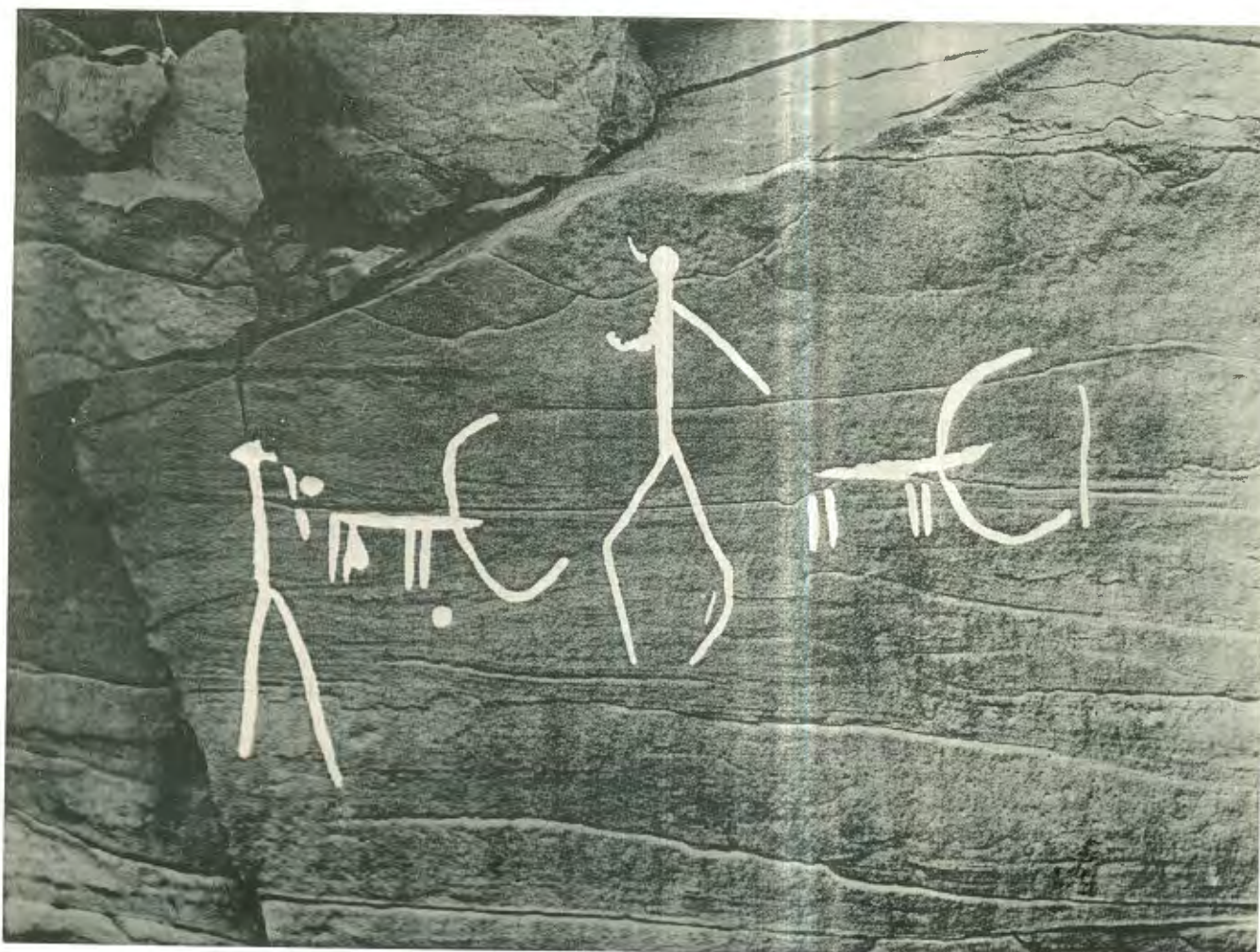
2 |—————| 10 cm. See p. 28.

67. M 816





1 |-----| 100 (!) cm. See p. 28. 67. M 823 a



2 |-----| 10 cm. See pp. 28, 29. 67. M 822 a



1 |—————| 10 cm. See p. 28.

67. M 804 a



2 |—————| 100 (!) cm. See pp. 28, 29.

67. M 831



67. M 837

See p. 29.

10 cm.

2



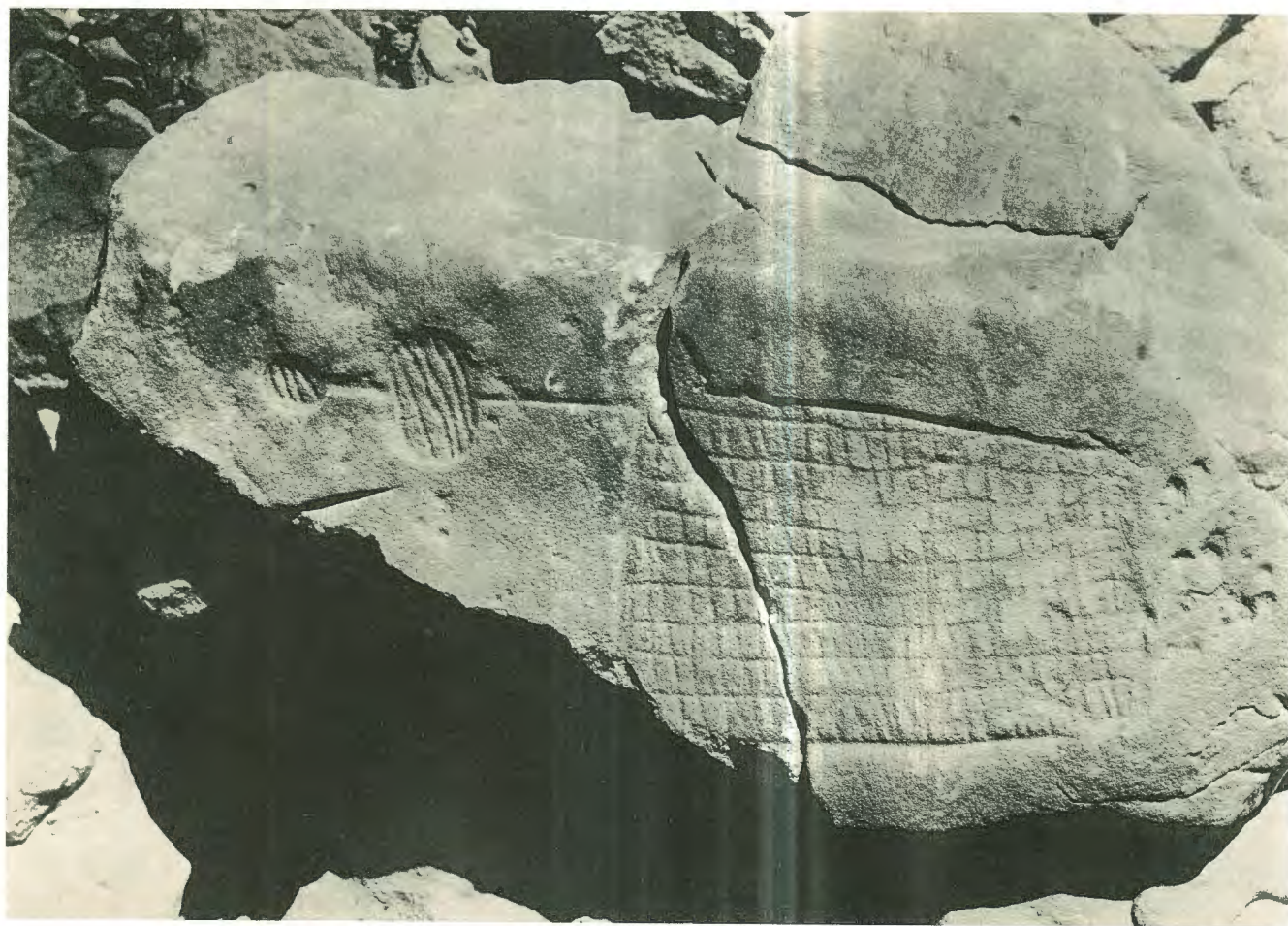
67. M 847

See p. 29.

10 cm.

1



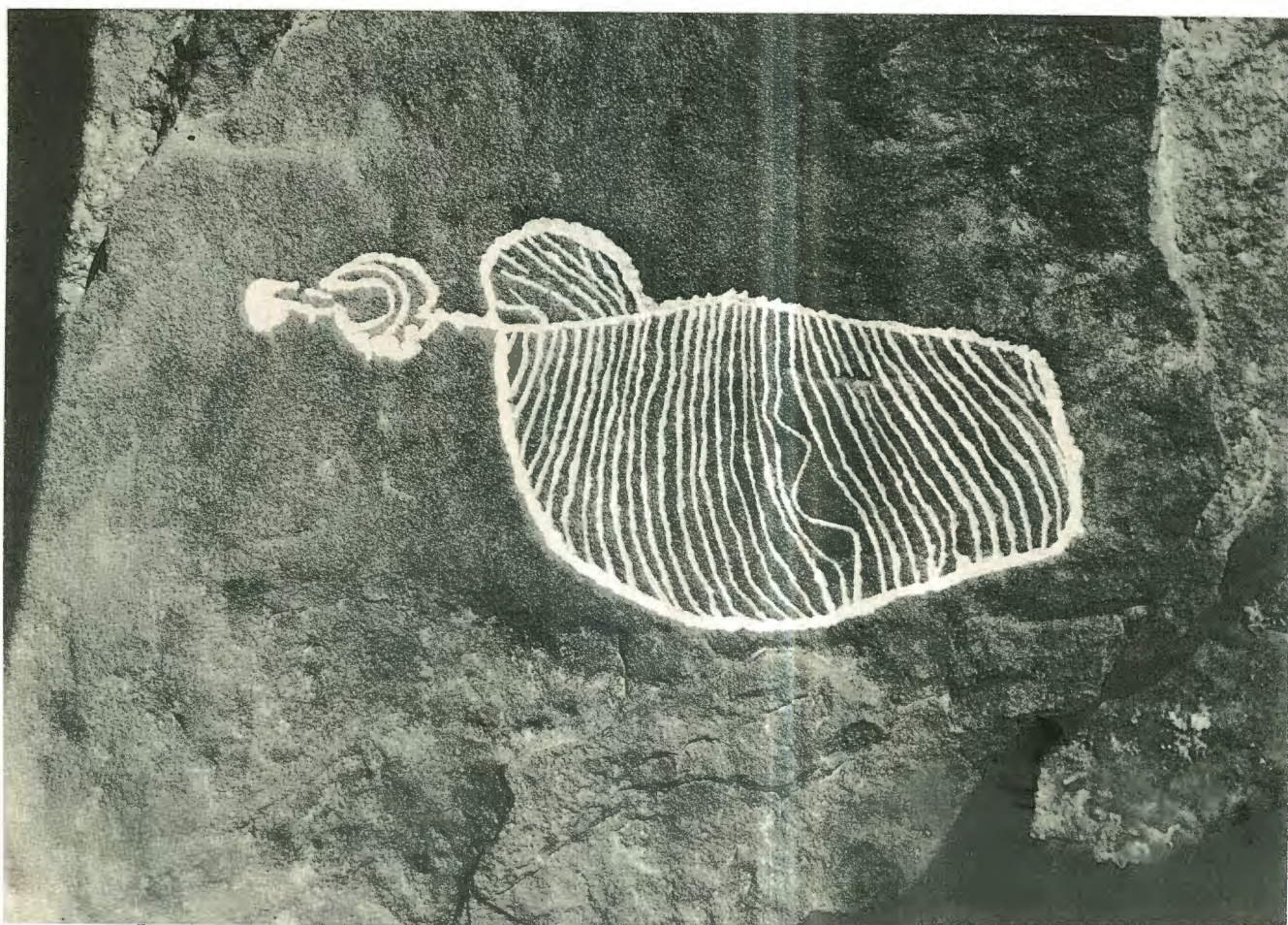


63. M 736

See p. 28.

10 cm.

2



62. M 704b

See p. 28.

10 cm.

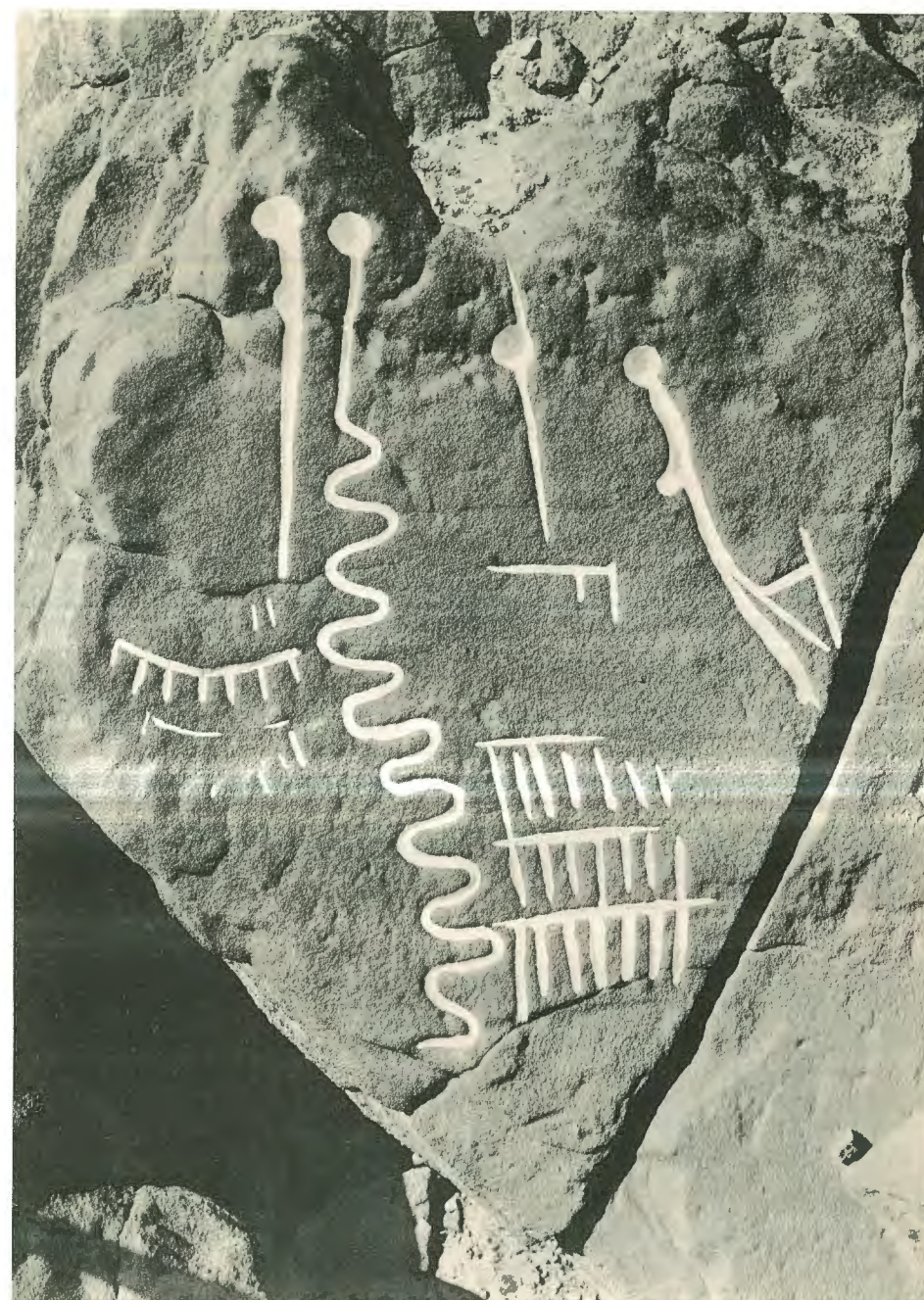
1





1 |-----| 10 cm. See p. 28.

67. M 821a



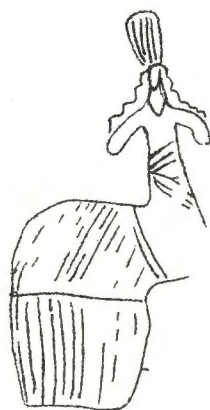
2 |-----| 10 cm. See pp. 13, 30.

68. M 859a





1 63. M 735c



2 63. M 727b



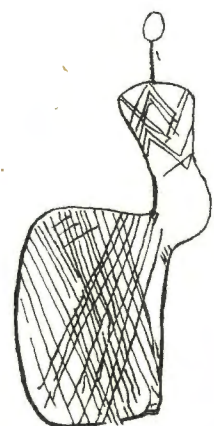
3 63. M 731a



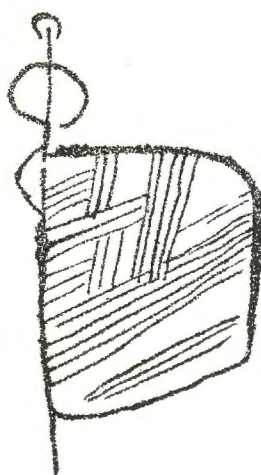
4 62. M 705b



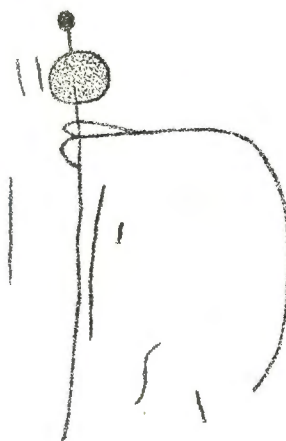
5 63. M 735c



6 63. M 735c



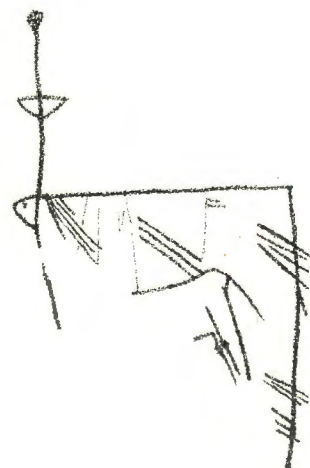
7 62. M 705b



8 66. M 785



9 67. M 806



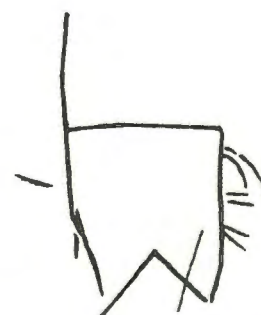
10 67. M 816



11 67. M 814



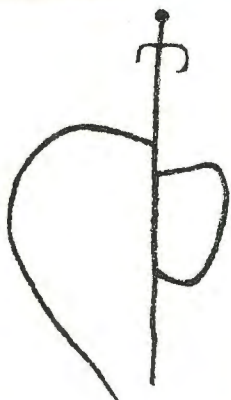
12 67. M 801



13 67. M 817



14 67.M840



15 67.M820



16 66.M770



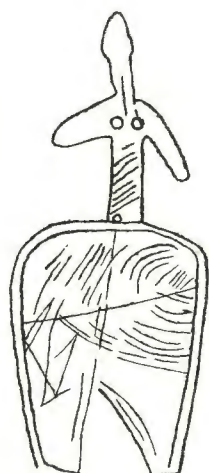
17 67.M812



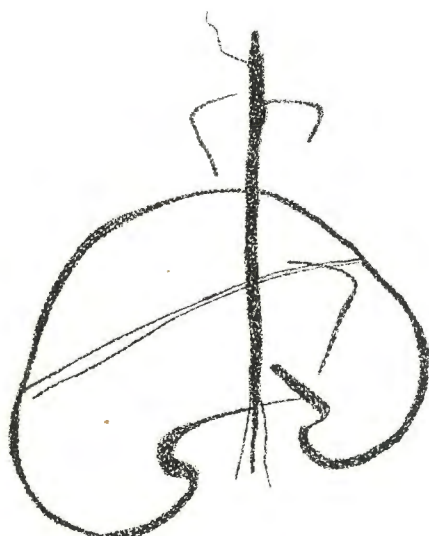
18 66.M786



19 62.M705B



20 67.M823a



21

67.M830a



22

67.M842



23 67.M815



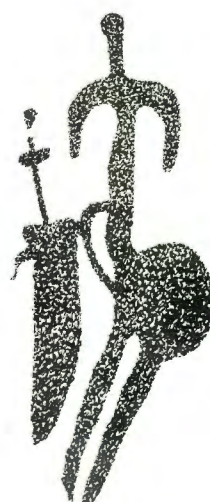
24

62.M705B



25

67.M841



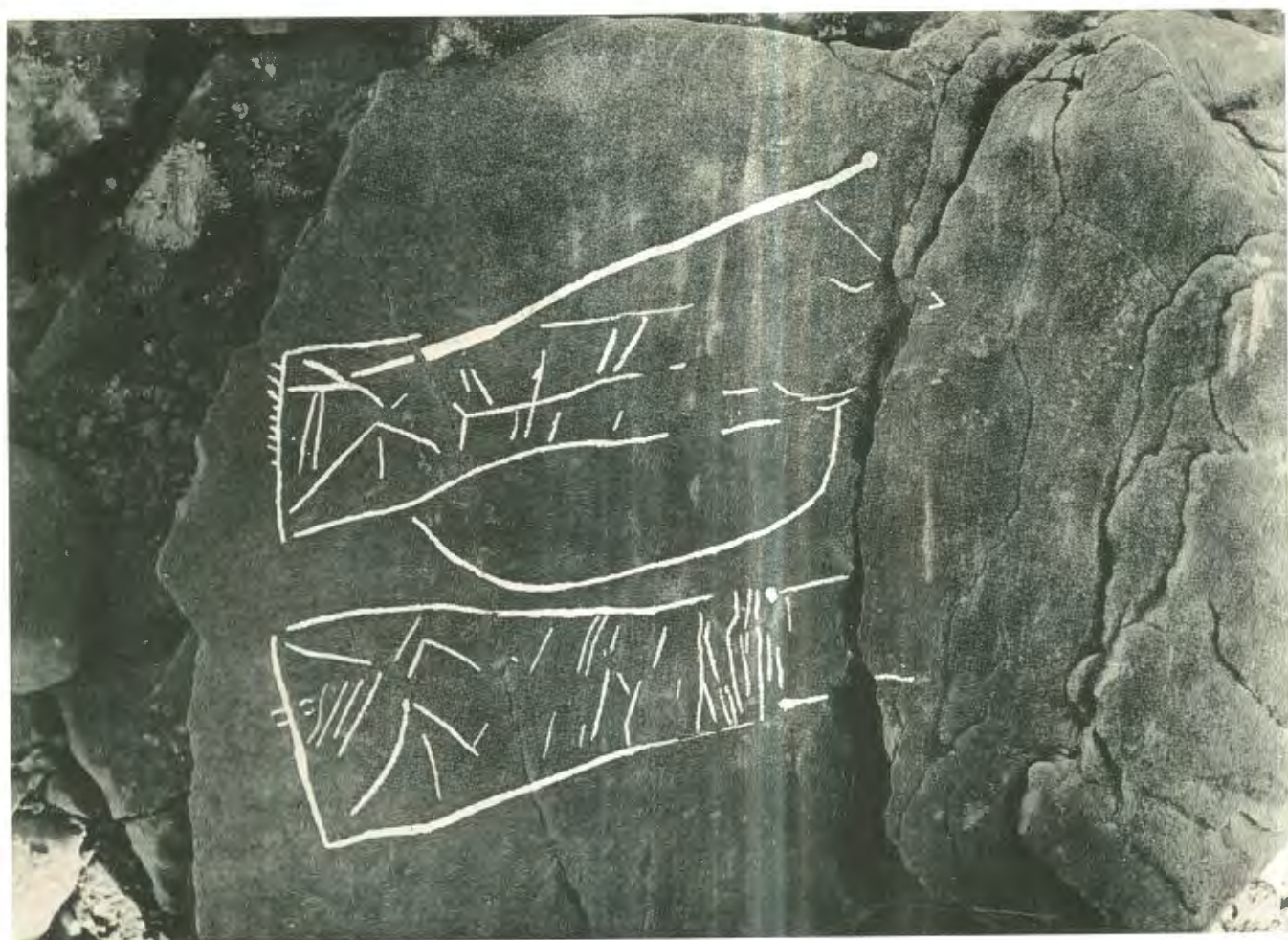
26

67.M804a



27

67.M804a

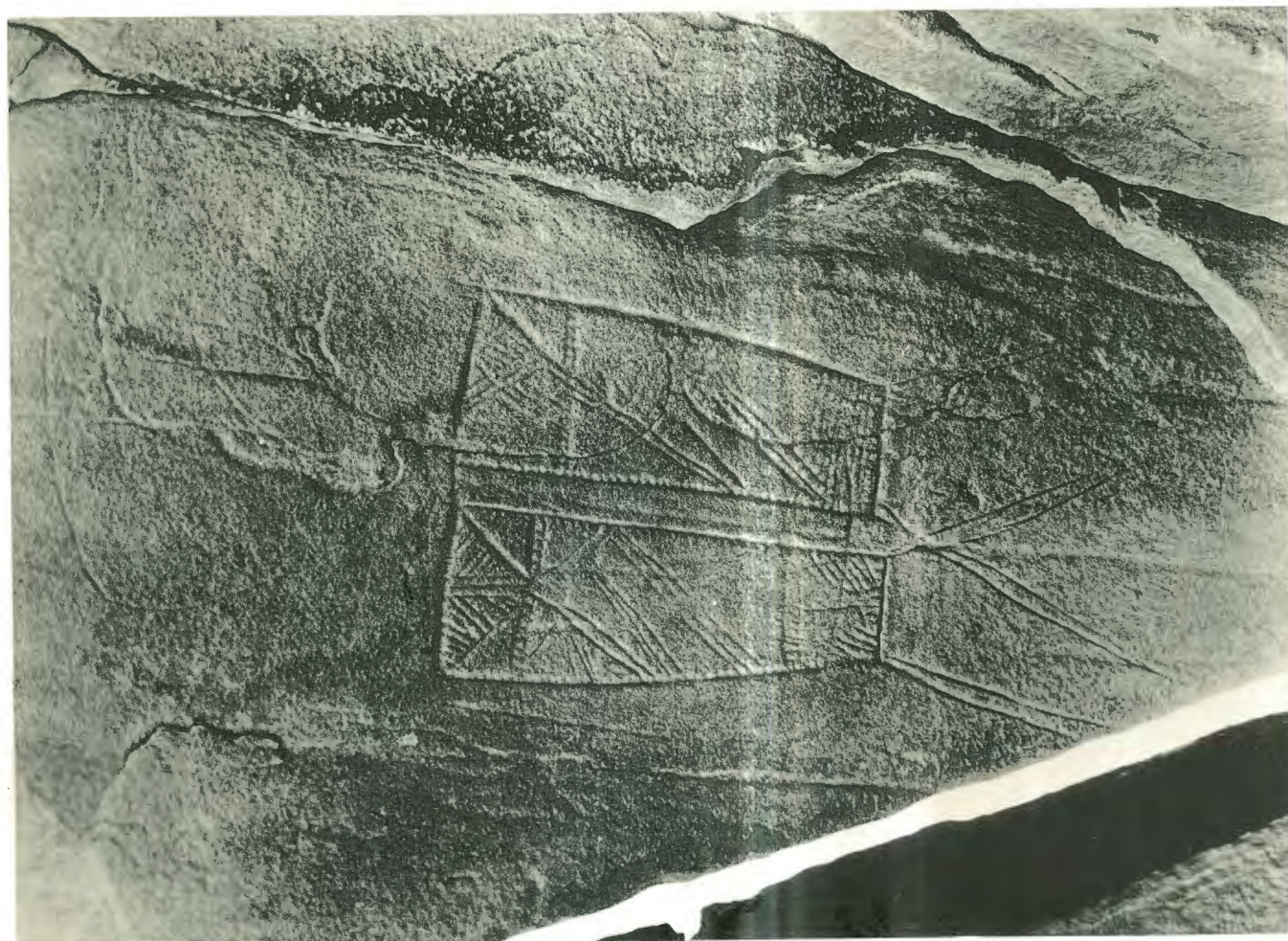


63. M 733a

See p. 29.

10 cm.

2



64. M 744

See p. 29.

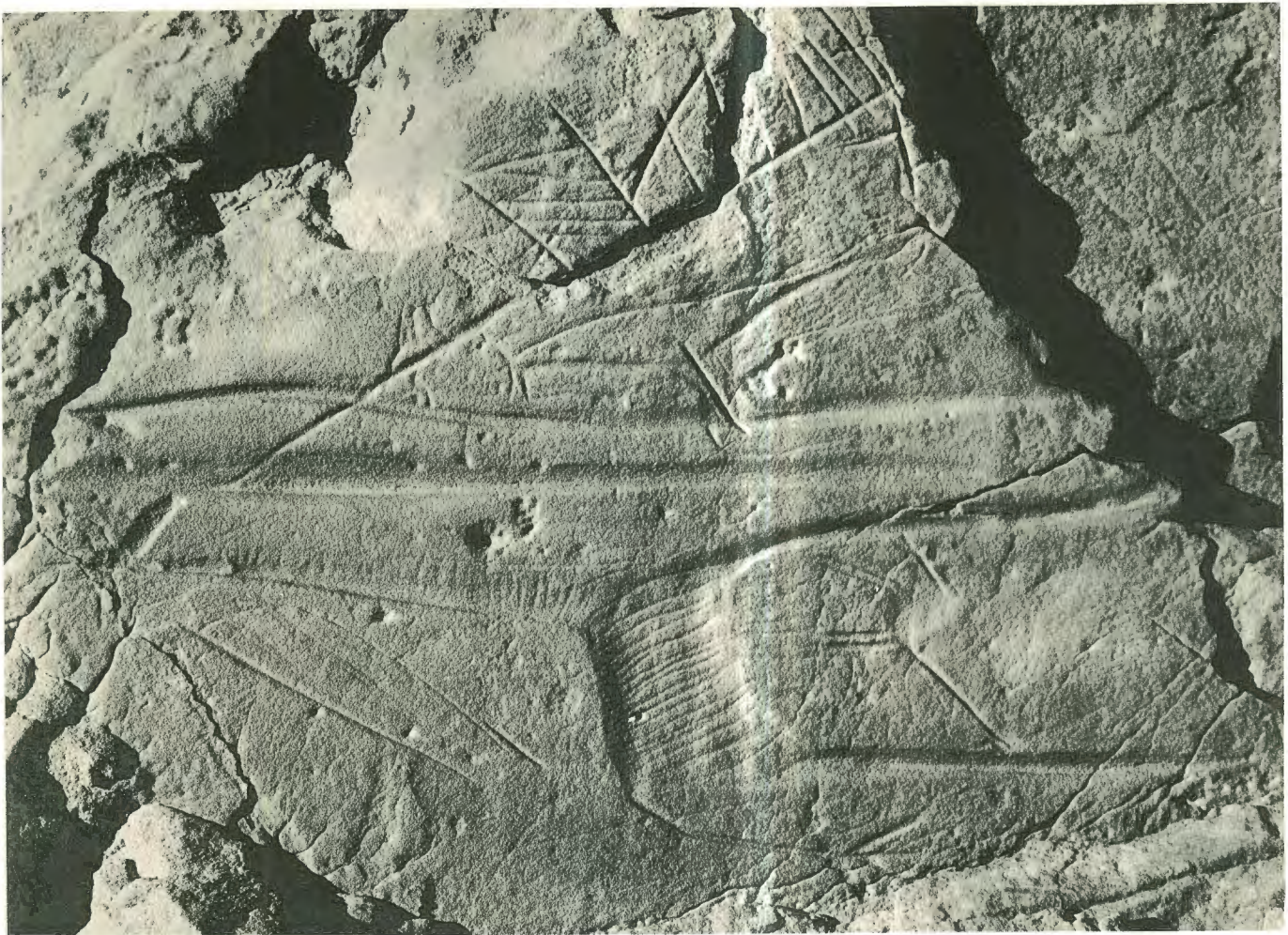
10 cm.

1



1 — 10 cm. See pp. 28, 30.

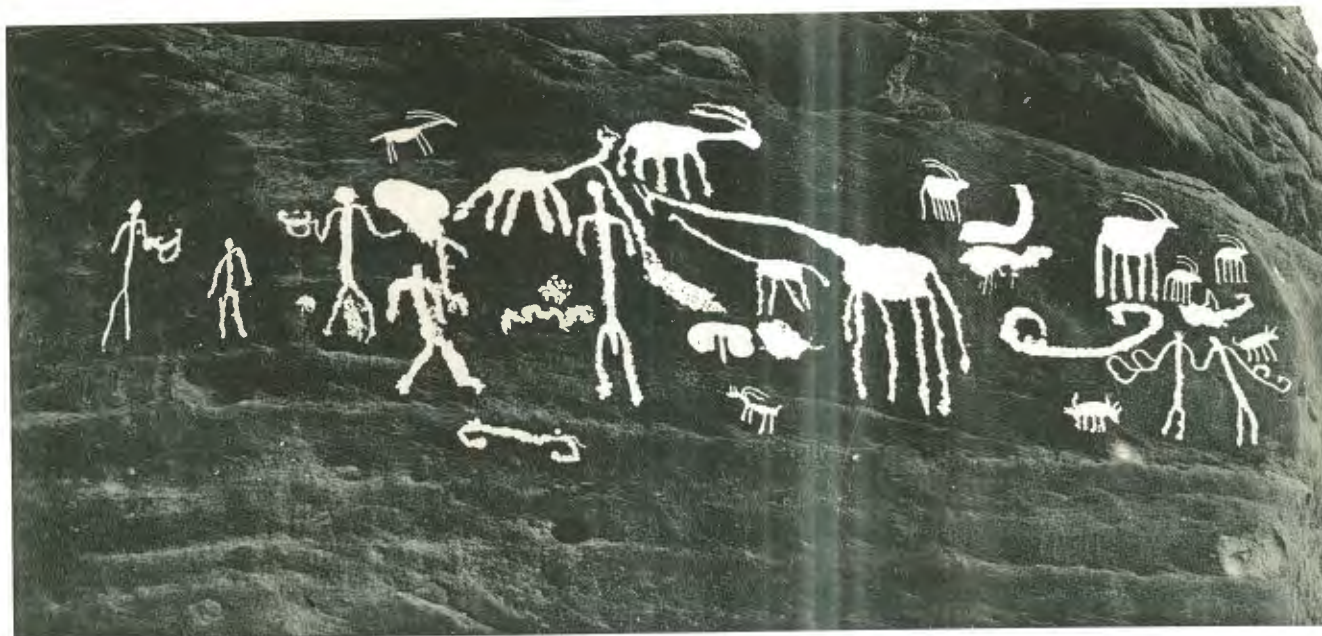
66. M 786



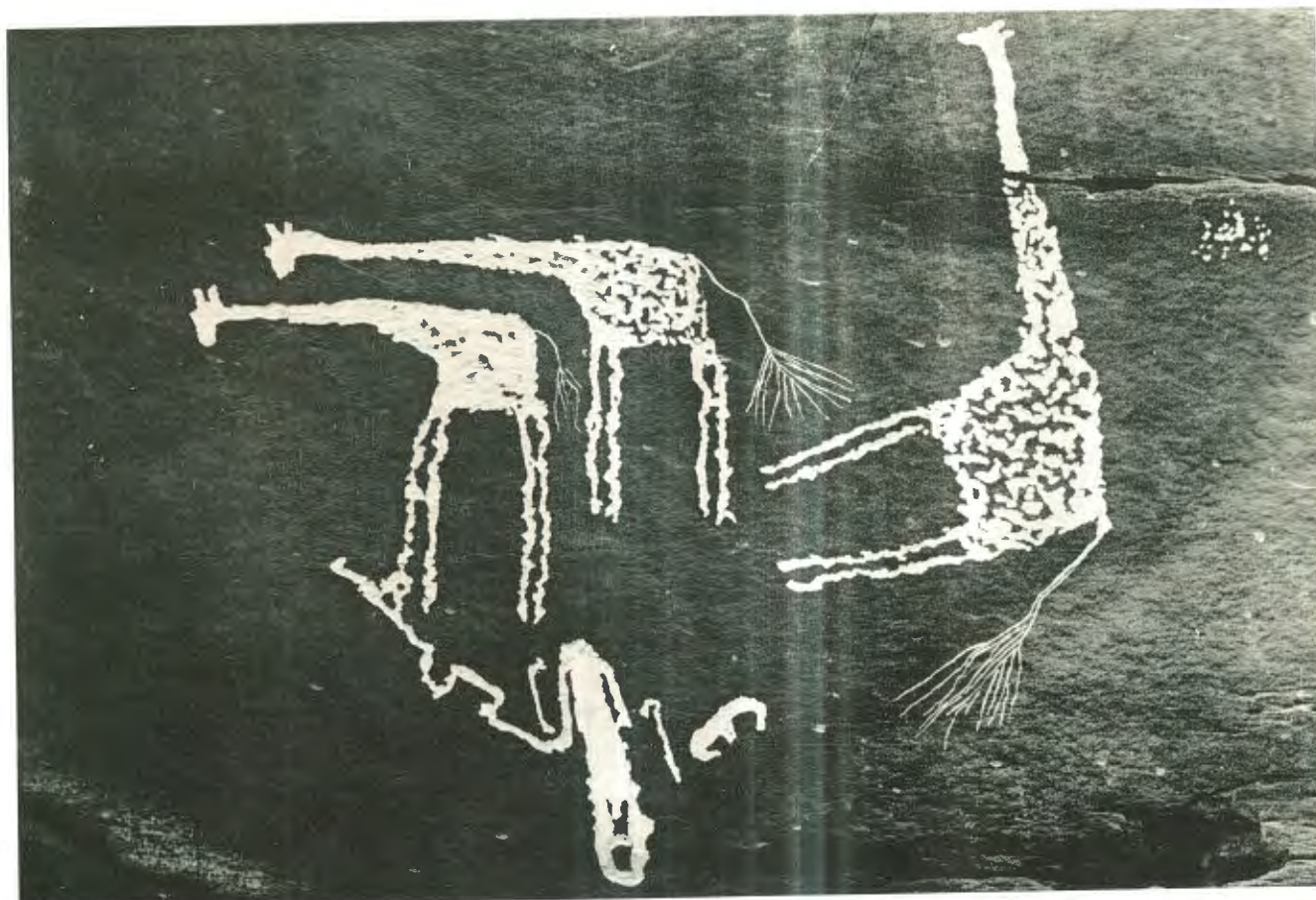
2 — 10 cm. See pp. 28, 30.

67. M 844





1 |-----| 100 (!) cm. See p. 31. 35. M 475a



2 |-----| 10 cm. See pp. 31, 32. 48. M 578c





1 | See pp. 30, 31, 32. 52. M 617 100 (!) cm.



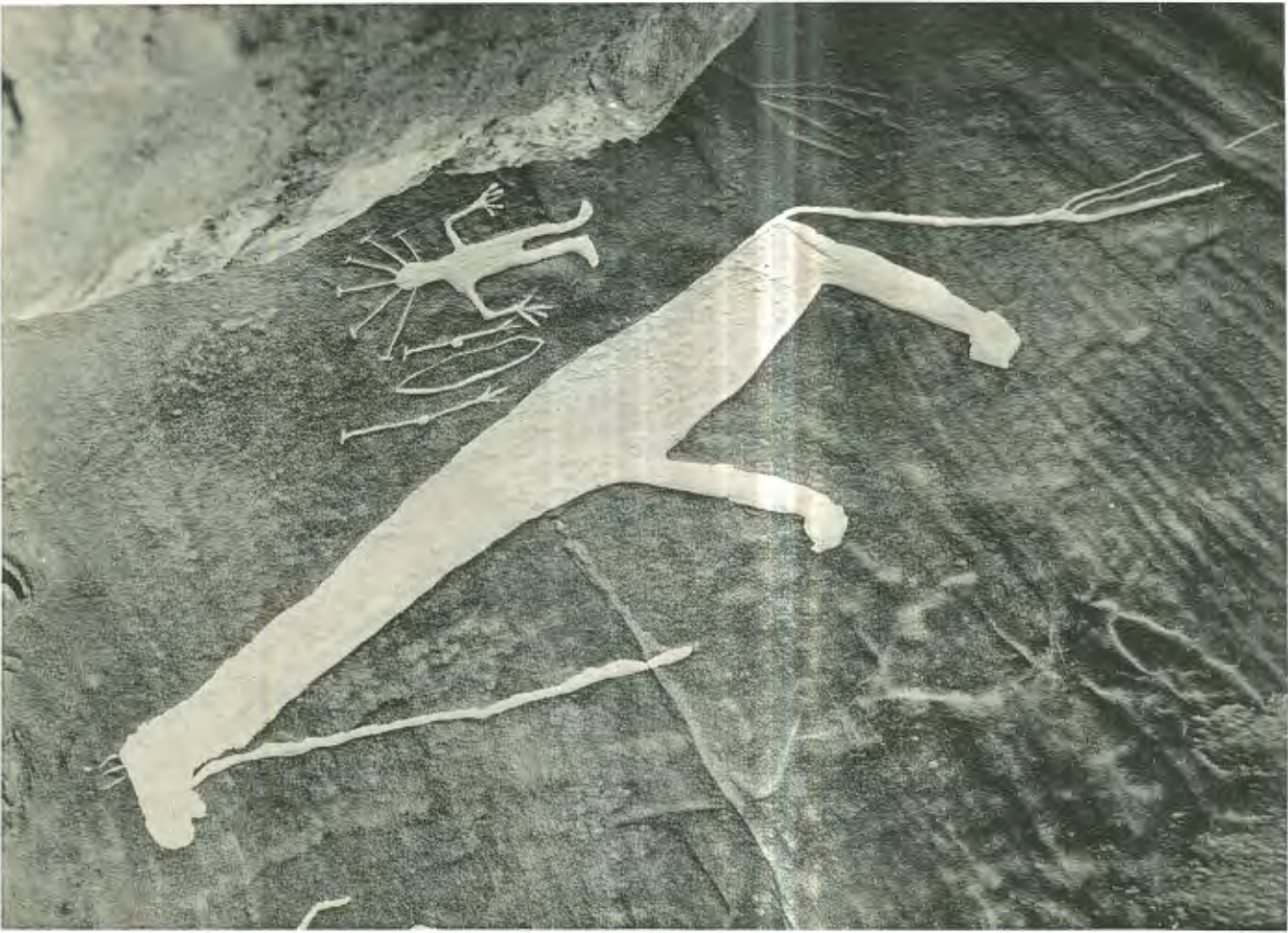
2 | 10 cm. See p. 32. 52. M 618a





1 | ——— | 10 cm. See pp. 30, 31, 32.

64. M 756



2 | ——— | 10 cm. See pp. 30, 31, 32.

58. M 688





1 |————| 10 cm. See pp. 30, 31, 32.

58. M 687a



2 |————| 10 cm. See pp. 18, 31.

53. M 635





1 |—————| 10 cm. See p. 32.

67. M 798b



2 |—————| 10 cm. See pp. 30, 31, 32.

64. M 762a



1 |—————| 10 cm. See pp. 28, 31, 32.

64. M 750



2 |—————| 10 cm. See pp. 28, 32.

64. M 751



1 |-----| 10 cm. See p. 33. 31. M 396a



2 |-----| 10 cm. See pp. 31, 33. 58. M 679





1 |—————| 100 (!) cm. See pp. 18, 31, 32.

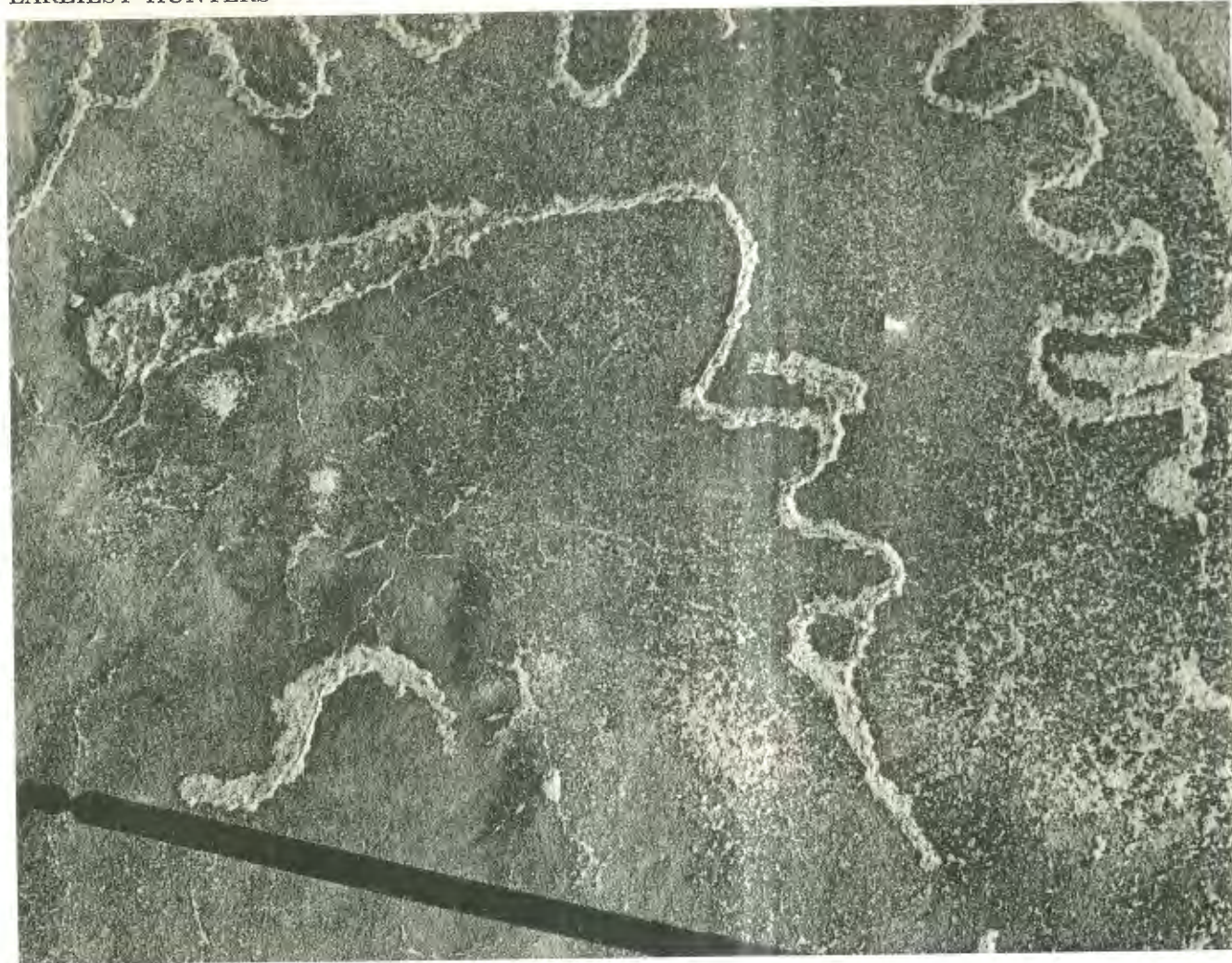
53. M 633



2 |—————| 10 cm. See pp. 31, 32.

53. M 638





53. M 636

See p. 32.

10 cm.

2

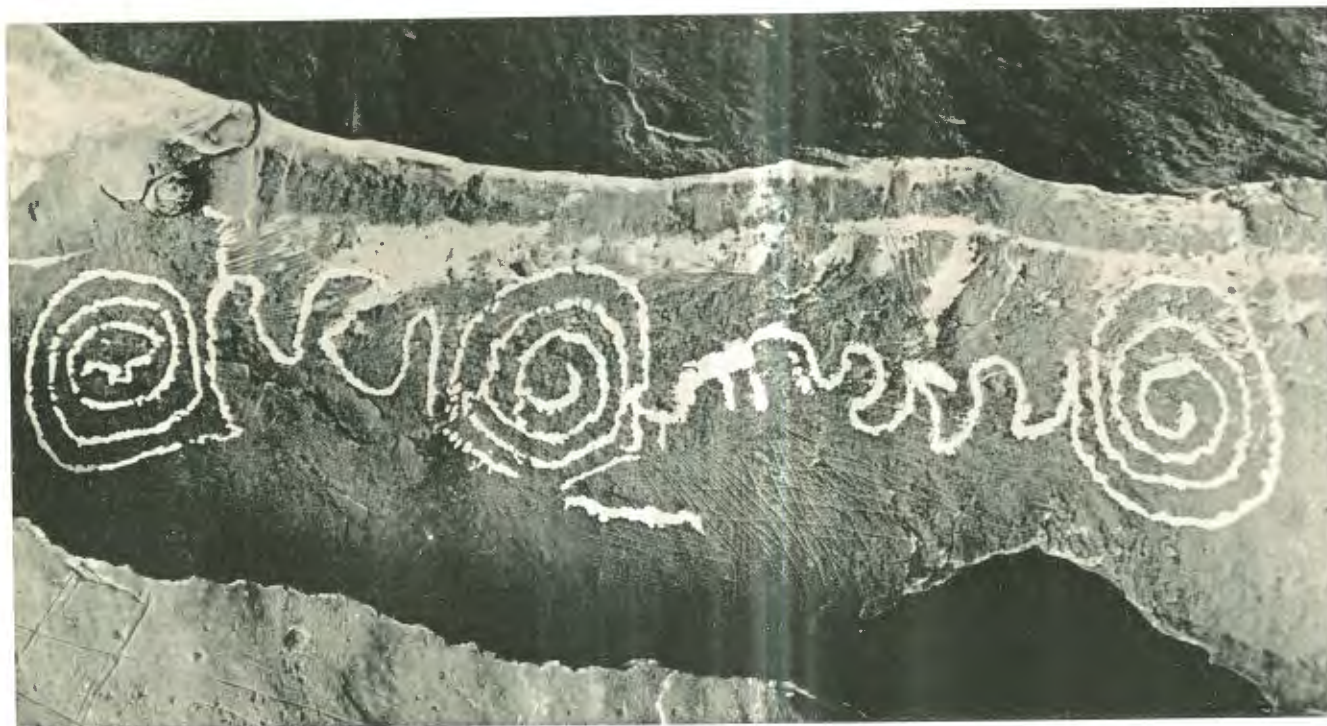


53. M 637

See pp. 31, 32.

10 cm.

1



1 |—————| 10 cm. See p. 32.

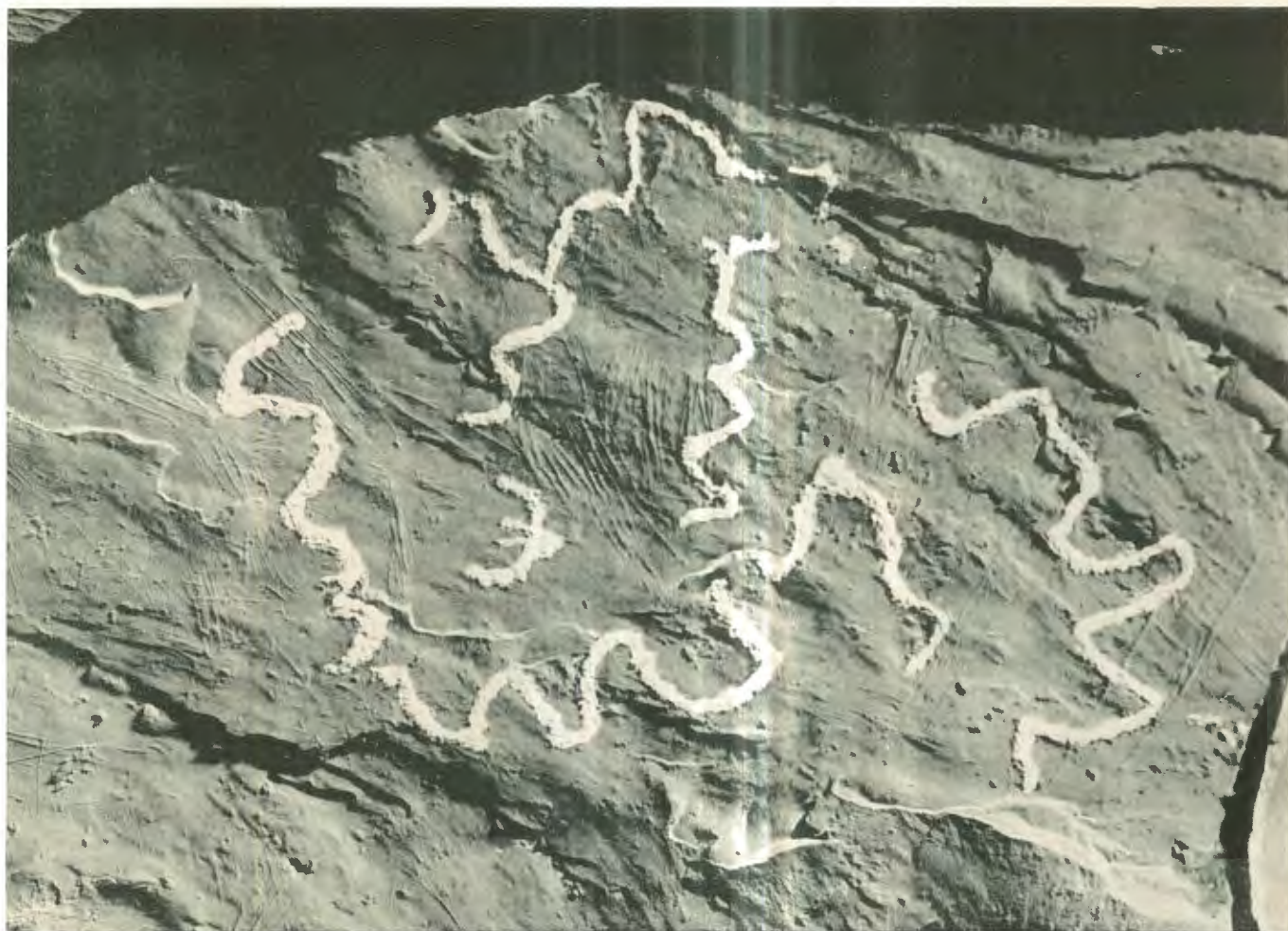
40. M 527 bis 7a



2 |—————| 10 cm. See p. 31.

64. M 746a





1 |————| 10 cm. See p. 32.

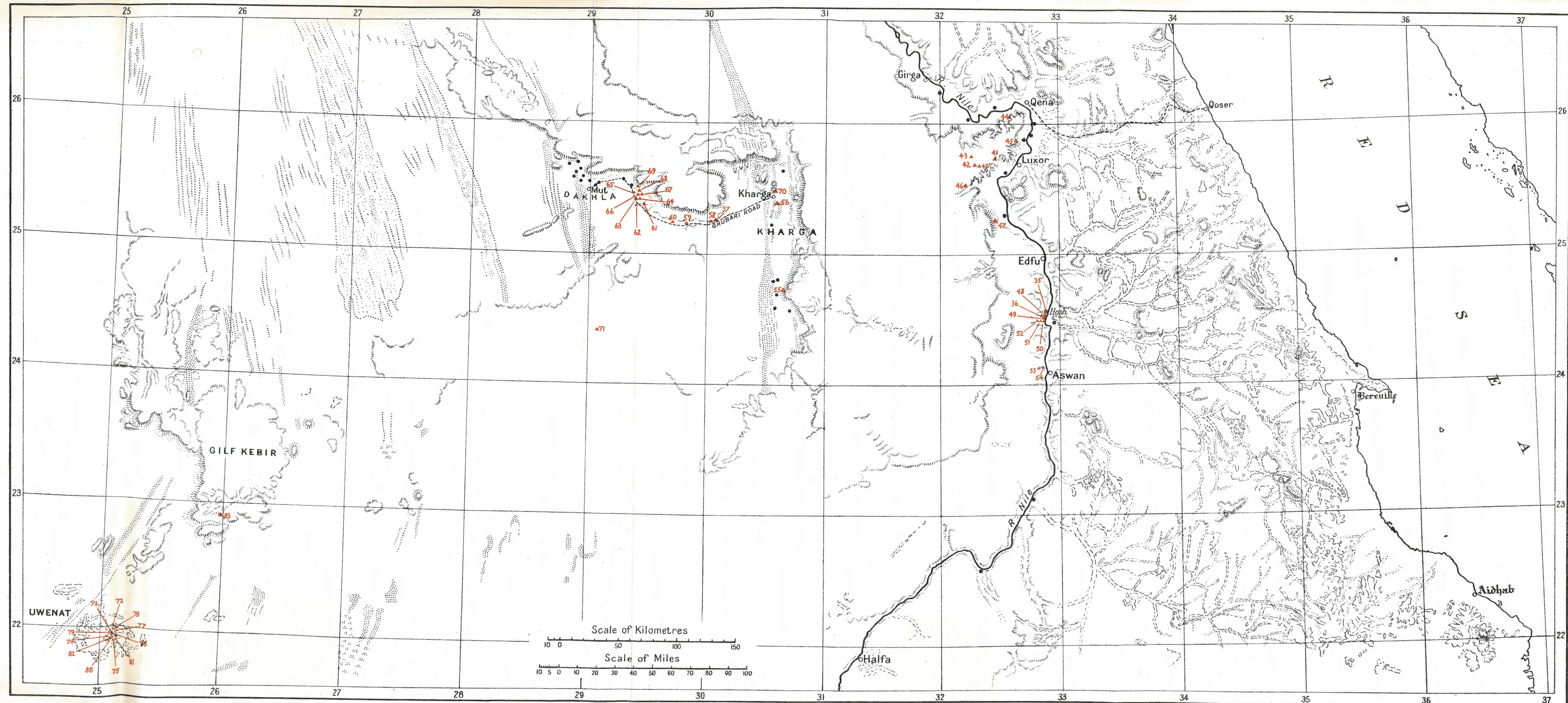
40. M 527 bis 8a



2 |————| 10 cm. See p. 31.

40. M 524 bis a





ROCK-DRAWINGS OF SOUTHERN UPPER EGYPT

E 4
121
(262)